THE HISTORY

OF THE

SHODDY-TRADE:

ITS RISE, PROGRESS, AND PRESENT POSITION.

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ERRATA.

Page 27, line 23.—Instead of "It otherwise would for some purposes. The real," &c., read "It otherwise would. For some purposes, the real," &c.

„ 34, line 2.—Read "nons" instead of "nows."

„ 47, line 12.—Read "production" instead of "productions."

PREFACE.

THE writer of this work ventures to lay it before the public, conscious, however, that it is not free from imperfections, yet trusting that the treatise will be received in the same spirit in which it is tendered, viz., respectfully, and with a feeling of good will. The object of the writer has been to embody, in something like a definite form, the leading facts and the most important particulars relative to the "Shoddy Cloth Manufacture;" to seize facts and preserve them before they be lost in obscurity, and to rescue those which are fast falling into this state; to present, indeed, a general view of the subject, as clear, correct, and truthful, as the writer's resources and opportunities would permit. The writer has aimed at being candid, impartial, and moderate in his comparisons and comments; and has endeavoured to render the work conducive to the interests of the trade, and all concerned

in it in any and every capacity. The work, though necessarily incomplete from want of data, and faulty as a composition from the writer's inexperience as an author, will, it is hoped, supply in some measure the void in literature, and the want of any book of reference, as regards the shoddy-trade; and serve as the basis of a better treatise on the subject, on the part of some one more competent to the task, and possessing leisure to devote to the undertaking.

BATLEY, *July*, 1860.

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SHODDY-TRADE.

IT is proposed in these unassuming pages to trace the rise, progress, and present position of what is termed the Shoddy Manufacture, the nature of which will be explained shortly. This manufacture has, from a small beginning, attained a position of considerable importance, both as regards its influence on the more immediate sphere of its operations, and also as furnishing articles of commerce and consumption in the markets of the world; whilst at the same time it has created markets almost everywhere, for the supply of raw material. This manufacture is comparatively of recent origin, and has not, till the last few years, perhaps, attracted any great degree of public attention; but now, from its gradual developement, and the magnitude of its character, the political economist, the statist, and the legislator, are severally led to inquire into its nature, extent, and utility; also its results, as they affect the

industrial classes concerned, as they bear on the interests of trade generally, and the welfare of the community. The extent and importance of this novel but interesting manufacture, will be attempted to be demonstrated by the statistics which will be given in the course of the treatise; and whether these be considered abstractedly, or in relation to those of other textile productions, they will equally establish the premises. This position has been achieved by the trade, by the force of its qualities, and the influence of its merits; not, however, without having had to encounter active and virulent opposition, and to contend with the prejudices of the public, which, according to its wont in like cases, has looked with cautious eyes upon this striking innovation in the manufacture of cloth. This habitual caution on the part of the public, has been increased by the lapses of the Manufacturers themselves, for defective goods, or in other words, goods of an uneconomical character have been put upon the market, and the effect has rebounded to the injury of the reputation of the manufacture: the faults it has betrayed, however, and which are incident to its very constitution, have not proved a serious obstacle to the progress of the trade, which has been active, if not rapid; or to its developement, which has been prosperous. The fundamental principle of this manufacture, is a combination of shoddy or rag-wool, with sheep's wool; and the former being shorter in staple, and less strong in the fibre, than the latter, the soundness and durability of any cloth composed of these materials,

depend mainly upon the proportions in which they are mixed together. The object of this manufacture is to produce cheap, useful, tasteful, and economical cloths for wearing apparel, and other uses; and though all classes patronize them, they are especially adapted to meet the requirements and circumstances of the bulk of the people. To secure this class of cloths, it is essential to use shoddy judiciously: but from one cause or another, (severe competition on the part of the Manufacturers on the one hand, and of the Merchants on the other, together with the rage for cheapness on the part of the public) that condition has not always been complied with; hence the damage to the character of the manufacture referred to. It is but natural to presume that in the early stages of the manufacture, the experimenters would cautiously introduce the new element; but finding their essays successful, it is equally natural to suppose they would, by successive degrees, attain the point of proportion in which it is feasible to combine the materials in question to any advantage: certain it is, that this point has been reached long since, and the principle involved, acted upon with respect to some of the kinds of cloth produced—of course those which are low priced chiefly. It would be well for the Manufacturers to bear in mind, that, although the blame of comparatively unserviceable goods being produced, ought, perhaps, in all fairness, to be divided amongst the Manufacturer, the Merchant, and the Consumer, it ultimately rests with them; so that it is their interest obviously to resist the tendency of the

demand for such goods, and to encourage at all times, both in theory and practice, the principle of goods being made of a useful and creditable character. Having thus adverted to the discommendable features of the shoddy manufacture, as an impartial and candid review requires, the writer would earnestly impress upon the Manufacturers, the necessity, the desirableness, and the advantage of directing their best endeavours constantly to sustain and improve the character of the manufacture for supplying cloths, which shall prove satisfactory in every market, so that reputation and success may attend their efforts, and the trade become more firmly fixed than ever. Turning to the opposite and commendable features of this manufacture, we may confidently affirm that it has created a source of national wealth, by utilizing materials of value, which were previously almost thrown away—it furnishes employment at good wages, to thousands of our people, as well as to great numbers abroad—engages considerable capital, and supplies the market with cloth possessing every desirable requisite, at prices suited to the pockets of the million. The useful properties which pervade this manufacture have been ascertained, and are appreciated, as is evident from its ever enlarging limits and increasing importance; and it may now be fairly considered as ranking with the great industrial interests of the country, and classed with the staple manufactures upon which the commerce of Great Britain is based, or with which that commerce is at least intimately allied. We purpose to treat of the subject principally

in connexion with the village or town of Batley, where the manufacture first took its rise, and where it flourishes at the present day. From Batley, as a common centre, this manufacture has radiated in every direction, and, as a parent stem, has spread its branches to the surrounding towns and villages: these will in due course receive attention; but before enlarging on the subject more immediately under discussion, let us briefly glance at some of the historical and topographical features of Batley, and also the circumstances in which it was placed, in a manufacturing and general point of view, at the date of the introduction of the manufacture, which has effected such a material advance in its population, status, and wealth.

The Parish of Batley is of ancient settlement. The Church belongs to antiquity. Scatcherd, in his 'History of Morley,' states "that Robert de Lacy, the founder of the ancient Church here, gave the advowson of it to the Priory at Nostel, which was confirmed by Hugh de la Val, King Henry I. and II., and Pope Alexander III." This refers the existence of the Parish Church to a period dating almost 800 years ago, and this structure (or rather one on the same site) might not improbably have then long previously lent beauty and picturesqueness to the surrounding country or district, which, we may presume, would exhibit in that remote era, but few prominent objects in the form of tower and steeple, and (if one may venture to name them in such company) much less in

that of those tall and even graceful chimnies which now appear on every hand, and play an important part in connexion with our factories! However this may be, it is not necessary to our subject to ascertain the date of the foundation of Batley, or that of its ancient-looking Church either, and we therefore proceed to state that what may be termed the modern history of Batley, takes its rise in the 16th or 17th century, and consists in the main, we believe, of such fragments as may be gleaned from the parish register, town's books, tombstones, tablets, and the traditions and memorials of old families. The fact is, Batley is without a collected and connected written history at all; and difficult, we suppose, it would be for the most industrious antiquary, to rescue from the meshes of oblivion, materials with which to form even a tolerable narrative of the events and occurrences connected with the place, worthy to be recorded and handed down to posterity. And this refers, be it remembered, not to the lapse of ages intervening from the time when we learn that a Church existed at Batley, to that assigned for the commencement of its so-called modern history, but from the latter epoch to the present day—a comparatively recent period. It seems anomalous that we should possess clear and satisfactory accounts of events which occurred thousands of years ago, and yet are denied the interest and pleasure to be derived from reviewing those local matters of historical import which belong to the place of our nativity, and the scene of our subsequent life, and

therefore, greatly endeared to us.* It is quite certain that several families of wealth and distinction, which have become extinct, dwelt, during the course of several generations, in this immediate locality, and their halls and mansions remain, either wholly or partially at this day, as objects of interest and curiosity—as links between the time when Batley was dignified by aristocratic and influential families, and the present, which is characterized by a race of active and enterprising Manufacturers and Tradesmen. It would seem as if Batley had, with the decay or removal of the families of importance referred to, run through a cycle or period of time, in which its fortunes had risen and fallen, and during which, the village enjoyed a course of progress and prosperity, terminating in decline and retrogression. The family of the Deightons, of which eleven Johns, in unbroken succession, resided at Staincliffe Hall, or as it was formerly called, 'Woodhousham,' appears to have been largely engaged in business. The Deightons are said to have had extensive iron works in the neighbourhood, though we are not aware of any vestiges of them to be seen in our day, except those evidences of the past existence of iron works in the pastures near the ruins of Howley-Hall, may be connected with this name. Scatcherd, in his 'History of Morley,' states that the oldest tombstone in Batley Church yard, is

* Since the above was written, a short 'HISTORY of BATLEY,' (Price 6d.; Cloth 10d., published by J. Fearnsides, Batley,) has appeared, which contains some interesting particulars, but for want of data, the work is necessarily of a limited character.

that inscribed to the memory of one of these John Deightons, bearing date 1642. The stone records that this was the eleventh John, and the last of the Deightons. This memorial gives us some clue to the time when the Deightons were enacting their parts on the stage of life, and we believe the other eminent families were in a great measure contemporary with this. Carlinghow old Hall, described by Scatcherd 'as one of the most antique-looking houses which he ever beheld,' was formerly occupied by the Ellands (descendants of Sir John Elland); and the same writer states that 'it was apparently their family connections with the Copleys and Savilles, which drew them into this neighbourhood.' These have all long since quitted the scene, and though we have some tangible evidence of the greatness of the Savilles in their day, the Ellands appear to have left but a feeble imprint of their character and influence in the locality. Thus, there were the Copleys, Savilles, Ellands, and, in addition, the Mirfields, of and in the neighbourhood, the Savilles possessing the splendid hall at Howley, the ruins alone of which remain to our view, indicating however the magnitude and grandeur of this famed mansion, in its best days. The Foxcrofts, Thompsons, and Taylors, less pretending but influential families, have, in later days given prestige to the township. Concurrently with the race of the earlier-named and distinguished families, the population of the parish was sparse, and it is presumable that the people would live in a kind of feudal-like dependence upon them. Moreover, it

would seem to us that the passing away of these families, would leave a blank in the state of the villagers which they would address themselves to fill up. But whether at this time, previously, or subsequently, the manufacture of woollen cloths was begun here, the writer is unable to say. The woollen manufacture in its rude and primitive forms, has been carried on in Great Britain, probably from the earliest ages. History records that this department of industry had attained in the reign of Edward III., to a flourishing condition. The south and west of England were noted in those days for their manufacture of cloths, whilst northward, York and Halifax, are designated as places or districts, where woollens were then produced. It is not improbable that the domestic woollen manufacture has existed in this, as in many, and indeed almost all parts of the country, for centuries; in fact it must have been pretty general, as regards locality, for although we learn from history, that so early as the 14th century, this manufacture had centred in the south, west, and north of England, we are also aware that it was very common all over the country, not a hundred years ago, for people, and especially perhaps small farmers, to produce materials for clothing at their own homes.

Without making it a material point to define the period of time when, suffice it to say that Batley became engaged in the woollen manufacture—a manufacture for which the place is well adapted, on account of its possessing a good supply of water and coal, and

its central situation in relation to the principal local markets, being about equidistant from Leeds, Huddersfield, Bradford, Halifax, and Wakefield. It may not, perhaps, be obvious to every one, that Batley has a large source of water for mill purposes, inasmuch as there is no river or extensive stream passing through it, but only a beck; this beck, however, is a very important auxiliary to the vast reservoir of water, which covers a large area, at a level 40 or 50 feet below the surface, available by pumping, for dyeing, scouring, and other purposes.

The domestic manufacture, which certainly existed here, comprised tumming, or scribbling, and carding the wool by manual labour: what we understand by scribbling, was then expressed by the word tumming. The instruments used in the process of tumming and carding the wool, were—firstly, a frame composed of a seat for the worker, with an inclined plane, somewhat in the form of a desk before it; and secondly, square boards set with cards, having handles affixed: on the face of the inclined plane, were fixed iron or steel teeth, or course cards, upon which was placed the wool, then the operative (a word, we believe, not then applied in this sense,) proceeded to draw the hand-cards over the fixed ones, with a kind of horizontal, or see-saw motion of the arms to and fro; by this means the fibres of the locks of wool were straightened out or combed, and prepared for being spun—and for this purpose let us imagine it now at the wheel, where the old dame, we may suppose, with spectacles on

nose, is industriously spinning a single thread from the carded wool; or perhaps it may be the daughter who is engaged in the operation, which was quite the forte of the young women, who were hence designated spinsters—an appellation which unmarried adult females have retained ever since—to return to the old dame, we can readily conceive that the monotonous whir of the wheel, would induce abstraction of thought, and give the mind up to indulge in a thousand fancies; but we do not suppose that in her most speculative moods, she would ever dream of the great future of the humble art in which she was engaged; however this may be, we feel a pleasure, old dame, in taking a retrospective glance at thee and thy occupation, which we cannot but regard, (unimportant though they may appear superficially,) as links in the chain of causation, and the course of events. In addition to the foregoing, the domestic scene of labour would present, probably, the father employed in tumming and carding, the son weaving, and others of the family warping the webs, and winding the bobbins; thus we see mentally, a family busily prosecuting its labours under the parental roof, or at the homestead, in a manner so different to congregating with large numbers, according to the principle of the factory system. The first improvement on the process of tumming, consisted in the wool being worked upon scribblers and carders, which came into use, and one or two of which constituted, together with a rude willey, the machinery of what was termed a mill; indebted for its motive power to a water wheel, or it might be a wind-mill. A few

of these mills were scattered far and wide in the woollen districts; and it was customary to take the wool on horseback, through the narrow lanes, and over the bad roads, miles, to be carded, and to receive it back in the form of cardings ready to be spun. It would be interesting to know exactly when scribblers and carders were introduced, and who claims the merit or deserves the praise of their invention, and first application: certainly they are very important machines; and why the invention of the jenny is so much and justly lauded, and yet no curiosity manifested, or enthusiasm displayed relative to the machines in question, seems unaccountable. To us of the present day, the domestic manufacture of cloth by our forefathers, the principal features of which have been delineated, appears, although interesting in its character, as a diminutive affair, and so limited was the production, that one is ready to conclude cloth would be both scarce and dear in the market, the latter being apparently in not the remotest danger of being over stocked; at the same time we are bound to admit that there must have been a considerable number of clothiers in the district around Leeds, and a by no means contemptible quantity of cloth produced a hundred years ago; otherwise, how could the people of that town have conceived the idea of erecting such large and commodious premises, as the coloured and white Cloth Halls, (built in 1755 and 1775 respectively,) as markets for cloth? The difficulty, however, is to understand how the clothiers could produce an appreciable quantity of cloth, so to speak, a century

ago; for it is plain that then, and down to a subsequent period, dating probably not more than 80 years back, they were limited to the one-thread wheel, for it was only about the year 1767, that Hargreaves invented the spinning jenny. This invention of a Lancashire Weaver was, no doubt, as a matter of course, applied first to the cotton manufacture, but it is reasonable to think that the Yorkshire clothiers would not be long before they availed themselves of its powerful assistance. It is a well-attested fact, that a considerable advance upon the old method of manufacture had been made in this locality at a late period in the last century, for about seventy years ago, there were scribblers, carders, and billies, at Hanging-Heaton, an adjacent hamlet; the two former deriving their motion from "horse gins:" yes, singular as it may appear, these machines were propelled by horse power, not the so-called horse power of the mighty steam engine, but that of the veritable animal himself. These machines were, as we may naturally suppose they would be, small in dimensions, and somewhat rude in construction, but they were an important step gained, and the ground-work for a great expansion of the trade. The important operation of willeying was then performed by hand machines, and we may be assured the operation would entail hard labour, and be but very imperfect in its results; there was too a practice of beating the wool with sticks—the wool was placed upon a table or felking board, and then subjected to the strokes of two and sometimes four men, who, with a couple of

sticks each, kept them rising and falling in concert, beating time and tune as it were; this was done for the purpose of cleaning and opening the locks of wool, preparatory to the next process, that of tumming: the practice of beating the wool with sticks would, we think, precede hand-willeying, and might be contemporary with it as well.

The foregoing assists in illustrating the principle that prior to the application of art and science to the operations of industry, the brunt of severe labour fell to the lot of our forefathers, who, as their circumstances required, would probably be a hardier and stronger race of men than we of this day. When a quality or faculty ceases to be called into exercise, it loses its vigour; and, it is not unreasonable to presume, that, as severe manual labour is less required now, there is also less personal strength and endurance, generally, on the part of the labourer.

We have now to refer to an event of an important character, namely, the erection of what is now known by the name of the 'old mill.' This mill was, we are informed, built in the year 1797, and is we believe considered the parent mill in the vicinity: the proprietary consisted of a number of persons, and not only then, but long after, the establishment of mill-premises was too costly an undertaking for a single firm, or an individual to attempt; hence the earlier mills were company concerns, almost without exception: Manufacturers now, who do not themselves

possess all the premises and appliances requisite for the prosecution of the trade, are deemed to occupy only a secondary position. The principle of combining their little capital, to accomplish jointly, what they were unable to do singly, has been carried out extensively by the Manufacturers; and notwithstanding the drawbacks of the plan, it has afforded them indispensable assistance: combination has served its purpose, but is now little required. The steam engine was brought into requisition at the old mill, and as its capabilities would distance immensely, either the horse gin, or water-wheel, we may suppose that the effective force, together with the novelty and beautiful action of the engine, would create quite a sensation in the locality. The old mill company had the privilege of adopting the steam engine, in a comparatively short time after the genius of 'Watt' had rendered it applicable to the purposes of the arts in general; and indeed it is clear, that the one event followed the other, in the order of natural sequence, for had not the steam engine been available, the mill would not have been erected. The scale of dimensions upon which the mill was laid out, was large for the time, and the spirit and enterprise displayed by the company command our admiration. Five or six billies, (with scribblers and carders to correspond,) containing in the aggregate, probably, about 300 spindles, were planted; improved machinery, and methods for willeying adopted; and fulling stocks put down. Heretofore, the fulling process for goods manufactured here, was effected by means of water power,

and chiefly at 'Greenwood's mill,' near Dewsbury,—a place long noted in connexion with cloth and blanket milling, and the scene of many interesting and romantic recollections, on the part of some of our living townsmen. The bulk of the goods made at the old mill, in its earliest days, was plain and striped blankets; the latter passing by the name of 'maccaronies,' and which were an article of export; and also a heavy cloth named 'shags,' which was delivered to the Merchants of Leeds and elsewhere, in the balk or unfinished state: these shags were dyed various colours, and finished or dressed for coatings. Overcoats at that day were made of stout strong cloth, with capes, and formed quite a suit of defensive armour for the poor traveller, who stood in need of every possible protection from the severity of the weather, in the old coaching times: one of these coats, if extant, would constitute an interesting relic of a byegone period, and would be the 'right thing' in the 'right place,' in a Museum. So far as we can learn the aforementioned goods, viz., blankets and shags, with the addition of horse-rugs, were the principal woollens manufactured at Batley, at the time of the erection of the old mill, and during the interval between this event and the introduction of shoddy as an element in the composition of cloth. That blankets were the staple article produced, is abundantly evidenced by the fact of their being so commonly hawked by men, rejoicing in the appellation of 'higglers,' or 'country hawkers,' these, of which there were quite a number, for we believe almost every Manufacturer, either by himself,

or his employee, disposed of his produce in this way; these, we say, were accustomed to traverse certain parts of the country, more especially Yorkshire, Lancashire, Cheshire, Cumberland, Northumberland, and Westmoreland, attending the fairs and markets held therein, and meantime calling at private, and we should not omit to say public houses, both in town and country, to offer their goods. These hawkers as a class, were strong and active men, enjoying robust health; their wits were sharpened by the exigencies of their position or calling, and by contact with society in its varied aspects, whilst their vocabulary was enlarged, if not enriched, by cant phrases, and witticisms picked up in their travels. Not a little amusing would it be, to hear the recital of the ludicrous incidents which befel some of these hawkers on their journeys, whilst at the same time their experience in accordance with the chequered nature of human life, furnished recollections of a grave and serious kind. Hawking after the fashion described, has been discontinued, many, many years, say upwards of thirty, and scarcely a

he practice remains in connexion with this
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ly, which took place, we are informed, in
3. It is uncertain who first produced rag-
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imultaneously commenced running rag
; is well understood, however, that one or
machines were in operation at Howley

Mill* quite as early as, if not earlier than, any in this neighbourhood. Water was the motive power in this case, but in some instances, attempts were made to work rag machines by manual labour: they failed however, as any one who knows the force required to drive a rag machine will at once see they must do: the 'horse gin' was brought into requisition for the purpose, with better success, but that was soon displaced by more powerful agency. Brighouse may claim the merit of having had one or two of these machines in work, as soon, perhaps, as any place in Yorkshire; nay, it would appear to have been first in the field, for the writer has heard one of the persons who were the first to avail themselves of this machine here, relate the story of his having heard of the Brighouse machines, and how he contrived to get a sight of those jealously guarded treasures, whereby he was enabled to explain to a machinist, who accompanied him, but who was not permitted to see the machines, the plan of their construction sufficiently, to guide the machinist, after encountering some practical difficulties, in producing the required copy: it is proper to note that the favoured person just referred to, had begun to send rags from Batley, to be ground by these Brighouse machines, which, we understand, were intended in the first instance, not for the purpose of producing shoddy, but to grind thrumbs, hard bits of worsted waste, and such like stuff. It is an ascer-

* It has since come to the writer's knowledge, that one or two rag machines were running on premises in Scotchman Lane, hard by Howley Mill, previous to those at the latter place, and that they were propelled by a water wheel.

tained fact, that rag machines were in use in London, prior to their being so in this part, and that they were employed in making flocks from rags for saddlery and upholstery purposes: probably the idea of grinding woollen, was derived from the practice of grinding linen and cotton rags for, or in the manufacture of paper. There was no patent, we believe, to secure to any one an exclusive interest in the machine; one was copied from another, and the number of machines gradually increased, so that in the course of a few years, they were to be found here and there in the district. The machine of that day was somewhat different to that of the present, for the swift or revolving cylinder, set with iron-toothed plates, somewhat like doffing plates, ground the rags at two points, viz., at the corresponding level of its ascending and descending revolution, or in simpler words, on both sides of the swift; and of course the latter was served or fed with rags accordingly; now, the machine tears the rags at one point only, viz., at the centre of the ascending motion, or at the front of the swift: with this exception, there has been no material alteration in the principle of the machine; there have been a few improvements made in the details; the speed has been accelerated; a greater number of teeth, now seperate, and not plated, inserted in the swift; and a fan applied to drive off the dust from the shoddy. The reader will have perceived that the principal part of a rag machine is the swift—one of these contains from ten to fourteen thousand teeth, according as it is coarse or fine; the coarser set swifts are used to

grind soft rags, viz., stockings, flannels, carpets, &c., into shoddy; the finer set ones, to tear cloth rags into mungo: these swifts perform six or seven hundred revolutions per minute, and would travel, if running over the ground in a straight line, at the rate of eighty or ninety miles per hour; it is in fact the rapidity of the swift's motion, which is the primary cause of its effectiveness. The produce of a machine, formerly, was small, being only about one-fourth of the produce of one now; whilst the work was not done so effectively, and the price of it was threefold what it is at the present time. Machines now engaged in grinding soft rags, produce four or five packs of shoddy, and those engaged upon hard or cloth rags, two to two-and-a-half packs of mungo, per day. The machine when operating upon soft rags, particularly the lower descriptions, makes its presence felt, by 'kicking up a dust,' which is by no means pleasant to those who are obliged to keep company with it. The occupation is not to be termed an unhealthy one, though in the case of some few persons, it would appear to have induced asthma, and the very nature of the employment suggests this to be the ailment most likely to arise from it. To th
must be surprising to see the rags sud
ed into fibrous wool; and it is in
grinding, that the apparent impossil
old rags into new cloth, vanishes a
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the rag is to be metamorphosed into c
it is assimilated to wool in its form a

once see the solution of the supposed difficulty.

We proceed to furnish some calculations made in 1858, respecting the quantity of rag-wool then being produced, together with the weight of rags required for the same. According to these, it is computed that at that time there were fifty rag machines in the township, producing yearly about thirteen million pounds weight of shoddy and mungo, the latter estimated at one-third of the whole: this may be so as regards this locality, but taking an average of all the rag machines at work in the district, which includes Ossett, the proportion of mungo produced, is probably from one-third to one-half the aggregate quantity: the following figures present the details of the calculations,—

50 machines.
4 packs of rag-wool daily average of production.
200 packs.
6 days per week.
1200
50 weeks per year, allowing two weeks for holidays and repairs.
60000
210 reduce into lbs.
2100000
120000
14100000
1410000 deduct 10 per cent for slack times.
12960000 net produce of rag-wool.
4320000 add 25 per cent for waste of rags in grinding and picking.
17,280,000 lbs

or 7764 tons of rags.

Assuming the foregoing table to be correct, it shews the large quantity of 7,764 tons of rags, converted annually in this township into rag-wool, the produce being 12,960,000 lbs., or 5,785 tons. In the calculations referred to, it was assumed, that within a radius of four miles of Batley, the quantity of rag-wool produced, is equal to that at Batley itself; and furthermore, that all the scattered places in the woollen districts, lying beyond the radius in question, produce equally with Batley, or one-third of the total quantity manufactured in the country. According to this assumption, there is the enormous weight of 51,840,000 lbs., or 23,143 tons of rags worked up yearly, in the shoddy centre, and districts of the kingdom, yielding 38,880,000 lbs., or 17,357 tons of rag-wool. Calculating the value of this material, shoddy at an average of 4d., and mungo likewise at 6d. per lb., and reckoning the latter staple to constitute a third part of the whole, we find the entire quantity to amount to upwards of three-quarters of a million of money; the items of the account stand thus—

25,920,000 lbs. of shoddy, at 4d. per lb. ..	£432,000
12,960,000 lbs. of mungo, at 6d. per lb. ..	£324,000
TOTAL.	£756,000

This sum may be deemed expressive of the utility of the great rag and shoddy laboratory; the greater part of it represents what has been paid for labour, the value of the uncollected rag being less than half its

final cost. We see in the case before us, the principles of economy forcibly and pleasingly illustrated in practice; and materials regarded at one time as almost worthless, converted, by the improving processes of manual labour and machinery, into valuable elements of textile manufactures. The seams, or refuse of rags, are used, after lying to rot, for the purpose of manuring arable land, particularly the hop grounds of Kent and adjacent counties; and are also made into flock partially, for bedding and stuffing uses: they are, moreover, which seems strange indeed, manufactured into a chemical substance, viz., prussiate of potash, a valuable agent in dyeing. Shoddy dust too, which is the dirt emitted from rags and shoddy in their processes, is useful as tillage, in like manner with the waste which falls under scribbling engines; the latter is saturated with oil, in which consists mainly the fertilizing property. Waste is of more value than dust, even for farming purposes, the former having been generally about double the price of the latter; but dust has of late increased in value, so as to be well-nigh equal to waste. A large quantity of these materials is annually sent from this district into Kent, and other counties, to till the soil. Recently, a plan has been hit upon, of expressing the oil from the greasy waste; the oil so expressed, however, is thick, dark coloured, and disagreeable rather in smell; still, no doubt, the result, practically, is a benefit to the community. Shoddy dust is useful in other respects than as tillage; it is now even carefully preserved in separate colours, and applied in the manufacture of

flock paper-hangings, which are the
of this article. Not a single thing
and shoddy system is valueless, or
no accumulations of mountains of
room, or disfigure the landscape; a
indifferent—pass on, and are benefi

In addition to the designated
made rag-wool, there is a large imp
constantly going on; the weight of
imported, is estimated roughly to amount to 10,000 tons yearly; probably three-fourths of this arrives at the port of Hull, and nearly the whole finds its way into this immediate locality. These imports are supplied by the Continent of Europe, and almost entirely, or at least the great bulk, by Germany and Denmark: in the latter country, manufactories for the production of rag-wool have existed for a length of time, a period of full thirty years, and the Danes have long been noted for their excellent qualities thereof. The manufacture of this commodity on the Continent has, like our own, increased gradually and largely, and has there spread itself over a wide space of territory—a space embracing several Governments, by whom it is fostered and encouraged. At Berlin there is a number of manufactories of rag-wool, several of which have been established by enterprising Dewsbury and Batley people: these factories produce both shoddy and mungo, and appear to be successful undertakings. The principal reason why our countrymen prosecute this business at Berlin and other places in Prussia,

rags but not rag wool . . .

is, because that g
exportation of ra
thus affording fi
wool not extende

France, Belgium, Switzerland, Norway, Sweden, Austria, and Holland, are the other parts of the Continent, not previously named, which contribute a portion to our imports of rag-wool. France, though possessing a vast population, has hitherto supplied this country with only an inconsiderable quantity of rag-wool; the French have done little themselves to raise a supply, and the efforts of our countrymen to do so, on French soil, have been, apparently, not very successful. As to rags, we have not been able to import any from France, on account of their having been prohibited as an article of export; but according to the Treaty of Commerce, just concluded between France and England, the former has engaged to remove the prohibition, but reserves the privilege of imposing a heavy duty on rags shipped thence to this country. The amount of duty has not been fixed yet, we believe, but there are fears, on our part, that it will be such as to preclude either paper or woollen rags being brought over, to any material extent. It is interesting to note that our German neighbours applied themselves to the rag and shoddy business, so soon after its initiation in this country. This fact indicates that the Germans have a great deal in common with the genius and habits of our people; indeed it is obvious to any one who has directed his attention to the matter, that there

are more points of contact and resemblance, between the English and German nations, than between the English and French, or any other continental race. This is only natural, when we consider that the English and German nations both partake largely of Saxon origin. Of all nations, not speaking our own language, or swayed by our dominion, the German has evinced the readiest disposition to carry on commercial intercourse with us, hence an important trade has resulted between the two countries, and our exports to Germany, and imports thence, constitute large items in the returns of the Board of Trade. There is, we have reasons to believe, very little shoddy or mungo used in the manufacture of cloth on the Continent; thus the staple of rag-wool, produced in foreign parts, like those of the important staples of cotton, wool, flax, &c., chiefly converges to one focus, viz., the "workshop of the world." Foreign rag-wool was subject to an import duty of a half-penny per lb., up to the year 1844, when it was abolished.

Superadded to the home-made and foreign rag-wool, is the quantity of extracted wool, which is now being produced. Extracting is a new feature in the shoddy trade, and one of an ingenious and economical character. A few years, perhaps not more than five or six, have elapsed since the discovery of the process, which consists in extracting or separating the woollen portion from fabrics composed of cotton warp, and worsted or woollen weft. The principle of the process is to destroy the cotton chemically, and at the

same time to leave the woollen uninjured; and this may be said to be literally accomplished. The raw materials used, or operated upon in the manufacture or production of extract, are the tabs of stuff goods, in their varieties of worsted, alpaca, and mohair makes; cast off dresses, or garments of the same materials; worn-out carpets, &c., all union make. These materials are of little value in themselves, but when subjected to skill and labour, yield a staple of wool, or woollen fibre adapted to, and valuable in the manufacture of certain descriptions of cloth. There has been a prejudice against the use of extract, on the part of Manufacturers generally hereabouts, and probably elsewhere too, thus preventing a more extensive application of the article at home; a prejudice, we said, but we think this hardly a fair way of putting the case; we ought, perhaps, rather to have stated there is a prevalent, and probably, therefore, a pretty correct opinion, that "extract" does not possess good felting properties, and that in consequence it has not found favour with the Manufacturers in such a degree as it otherwise would For some purposes, the real or supposed lack of felting property in "extract," is no drawback, but rather an encouragement to its use, because it is mixed up with materials which require to be tempered by something less keen in the milling process; the broad fact is, that "extract," though excellent in its way, is not generally applicable in the shoddy manufacture, in like manner with shoddy and mungo. It would appear that foreigners have found out the adaptability of "extract" better than

we have, for we understand the greater part of what is produced is exported chiefly to the Continent. America, however, is a respectable customer in this line. It is not in our power to furnish an estimate of the total weight of this new species of wool now being prepared for the market periodically: the factories engaged in this business are located in various parts of the country, particularly southwards, and so far it has not concentrated itself conspicuously at any given place: we think it probable, however, that the largest quantity of extract produced in any town or city is in London. There is a mill at Batley busily engaged in the trade, which prepares, we understand, something like 10,000 lbs. of the wool weekly. The principle of extracting has been only successfully applied hitherto, we believe, to rags containing a fibre of length and strength, so to speak, viz., a combed wool and worsted-made fibre. There can be no doubt that fine union cloth rags have been submitted to the process, but as no wool of the kind which would result, if the operation answered, has appeared in the market, it may be concluded the principle has not been found applicable to that description of rags; it is, however, a desideratum to extract the woollen portion from union cloths, if the purpose can be effected without impairing the soundness of the fibre, and this because there is a large quantity of union cloth rags to be collected, of little worth now, but which would immediately become a source of wealth, in the event of the successful application of the extracting process to them.

The Shoddy and Rag Merchants fall now under review: they form an important body, both as regards the number of them, and the extent of their transactions. Formerly, rag dealing was not a distinct business, neither was the dealing in shoddy: it was the practice of the Manufacturers in this locality, to buy and sort the rags they required, and to grind them into shoddy also; but in course of time, (say about thirty years ago,) there arose a class of Tradesmen who made it their business to supply Manufacturers (chiefly out of the town), particularly those in the localities of Halifax and Huddersfield, with shoddies, which were then coming into use rather extensively in those districts: from that time to the present, shoddy dealers have multiplied in number, and increased in importance, extending their empire both at home and abroad. They now supply the Manufacturers in this neighbourhood with a greater proportion of what these use than was the case formerly, whilst their operations, in relation to the outside shoddy districts, are on a greatly enlarged scale. These Shoddy Dealers probably set out with the notion that they could assort on their own premises [illegible] rags required for the shoddy (exclusive of [illegible]hich they could dispose of; but presently [illegible] increased beyond their capacity to do so, [illegible]e the class of "Rag Dealers," or "Rag [illegible] whose business is that of preparing rags [illegible]th Manufacturers, and the Shoddy Dealers. [illegible]date of their origin to the present, the Rag [illegible]ve steadily increased, and since the intro-

duction of mungo, in a greater ratio than before, so that now rag warehouses present themselves in every part of the town. It is computed that upwards of eighty Firms and individual Tradesmen are engaged in the preparation and sale of rags, shoddy and mungo, in the township of Batley; they are estimated to employ upwards of 600 hands, viz.—500 Pickers (females); 40 Foremen over them, 80 Rag Grinders, and 10 Carriers: it is presumed the total number of rag grinders will not be less than 130, of which we have allotted 80 to the Shoddy Dealers, the other 50 we take as connected with the Cloth Manufacturers, who supply themselves partially with shoddy and mungo, from the rag. The principle of the subdivision of labour is being applied more and more every day Rag sorting is quite a different affair to what it was a few years ago; the rags are now classified into such a variety of colours, and qualities, that they yield a great number of distinct sorts—mixed softs it is said, being assorted by some dealers into upwards of 20 different kinds: this method is highly conducive to the convenience of the Clothier, as it enables him all the better to hit off exactly the colours and qualities required in his goods. What are termed soft rags, such as stockings, flannels, carpets, &c., predominate in weight according to the tenor of the preceding calculations, but mungo from cloth rags either is, or appears to be, fast becoming a more important article than shoddy; it is more progressive, insinuating itself into the very seats of the fine cloth manufacture. Mungo has rapidly increased in use in the fancy and fine cloth

districts of Yorkshire, within the last few years, so that the production and sale of this valuable staple is an important and interesting branch of trade. The utility of mungo, or fine ground cloth, in the manufacture of woollen goods, was discovered about the year 1834, before which time the raw material was almost thrown away as useless, suffered to rot for tillage, or, at best, used for flock. Mungo was first brought out at Batley, and soon became appreciated as an useful auxiliary to the local trade. The discovery of mungo forms a remarkable era in the history of the shoddy manufacture, and has led to the most beneficial consequences to the trade of the district. Mungo now constitutes the principal raw material which enters into the composition of the goods made here (wool excepted) and occupies a leading position as a constituent of pilots, which are the staple cloth produced, and it is also used in a variety of goods. The name of the article in question, viz., "Mungo," may appear a very odd one to persons not accustomed to it, for though the term is understood in the trade, it appears very unmeaning, and to have no necessary or natural affinity with the commodity designated; the origin of the term "mungo" is said to be this—one of the dealers in the newly-discovered material was pushing the sale of a small quantity, when doubts were expressed as to its likelihood to sell, to which the possessor replied with emphasis, "It mun go," meaning it must go. Mungo is largely produced on the continent of Europe; some of the makes or qualities, sent out by certain parties, are excellent, both as regards colour, condition,

evenness of fibre, and general character. These makes are superior to the run of the qualities got up in this country, and are evidently the result of skill and painstaking labour. A considerable, if not the chief portion of the imported mungo, is sold by auction to the Manufacturers and Dealers, now at Dewsbury, but until lately at the Dewsbury and Batley stations, on the London and North Western line of railway. Mungo rags are derived from a wide range of places—London, the provincial towns of England, from Scotland, Ireland, many parts of Europe, America, and Australia. America has, of late, contributed this commodity somewhat largely, to the supply of the market here; the mungo rags thence are in the highest esteem with buyers, and are preferred to those from London, which in a general way may be said to stand next to American, in point of value. London furnishes by far the largest quantity, not only on account of its vast population, but because it is the point to which country collections converge, within a certain radius. Mungo rag is either old or new; the old being such cloth as has been made into garments and worn; the new, tailors' shreds or clippings from new cloth. It is the general practice, more especially in London, to keep the two sorts distinct; the new, though a smaller rag than the old, is of more value in the market by about three-halfpence per lb.; the old mungo rag is cut from coats, vests, trowsers, caps, &c., which before passing the shears, or being seamed, are termed "water flock." The women in London, employed in this operation of

seaming, are very expert at the work. Mungo fluctuates in value to a greater extent than shoddy; the rag, now at a high price, is about four-fold what it was at one period, in the early days of its history; the price of London mungo rag (old) then, was nine or ten pounds per ton, whereas at present, it is about thirty-eight pounds per ton; in the interval, the intermediate prices have been touched; the highest value this article has ever reached, is forty-two or forty-three pounds per ton. The great permanent increase in the value of mungo-rag, and the brisk and extensive demand for it, sufficiently attest the esteem in which it is held, The sources from which soft rags are derived, are substantially the same as those from which mungo rags are received. London is the great entrepot for soft rags; but it must be noted that America, whilst contributing freely mungo-rag, sends us little, if any, of the soft kind. It is presumable that the whole civilized world is engaged, either directly or indirectly, in supplying this country with linen and woollen rag, or the produce of the latter; if not now, such will, no doubt, be the case shortly, for the field of operation in this respect is apparently ever enlarging. London serves the market with mixed softs, stockings, white flannels, stuffs, carpets, &c., in addition to the large quantity of army cuttings produced there, viz., serge, flannel, and cloth clippings of various colours and qualities; these constitute a valuable part of the rag collection, being new, sound, of good colour, and quality. Scotland sends her stockings and mixed rags; Ireland, her whites; Germany, her knitted

stockings, in grey and white, and also what are termed "nons"; Austria and Italy swell the general stock, by their quotas of soft and mungo rags; Turkey and Russia also furnish low coarse softs.

We shall now refer to the shoddy sales by public auction, which have taken root as an institution in connection with the shoddy trade: these were commenced some eight or ten years ago systematically, and have been continued with commendable regularity. The sales have been held from the first at the Dewsbury and Batley Railway Stations, chiefly at the latter, until recently, and they are now conducted at Dewsbury, on the premises of the respective auctioneers, rooms being assigned properly adapted to the purpose: this method is, in some respects, an improvement upon the previous plan, being, at any rate, conducive to the physical comfort of buyer and seller. There are usually two sales per week, which are conducted alternately, on different days, by the two auctioneers, through whose hands the bulk of shoddy and mungo, sold publicly, passes. The quantity falling under the hammer weekly, may be fairly estimated at 60,000 or 70,000 lbs., comprising a range of all qualities and colours, varying in price from under one penny to upwards of one shilling per pound; in addition, wool, hair, waste, and rags are sold. These sales have attained considerable importance, and are attended by parties interested from all the manufacturing districts around. It may not be uninteresting to insert here a notice of the trade, and of one of these shoddy sales at the railway

station, by a gentleman—a mere observer,—which appeared in a local paper, shewing, as it does, the impressions made upon his mind by the active and novel scene before him. The article is headed "The Batley Rag and Shoddy Sales," and runs thus, "We know not who first discovered that woollen rags, if pulled to pieces, ground, and then mixed with wool, would greatly reduce the cost of the lower kinds of woollen fabrics. The name of the scheming genius who originated the happy idea may, perhaps, never be satisfactorily settled, and, therefore, never receive the fame to which it is entitled; but the results of the discovery are highly important, and are among the most wonderful developements of modern industry. Whether Batley can justly claim the honour of having given birth to the pioneer of the great "rag and shoddy" trade we have never been able to ascertain, but it is certain that Batley has taken the lead in it, and has now completely distanced all competitors. Certain difficulties with which Dewsbury had to contend, in regard to railway arrangements, have chiefly contributed to this result, and Batley is now unquestionably the head quarters of the shoddy trade. What the cotton trade has been to the towns of Lancashire, the rag trade has been to Batley—a source of wealth and remunerative employment. Between twenty and thirty years ago, Batley was a considerable village; but certainly insignificant in comparison with what it is at present. So recently as 1841, the population was only about 7,000: in 1857, it had increased to 12,000; a rate of increase not often witnessed in

English towns. Instead of a dull, jog-tro
have a busy, enterprising town. Large mil
houses have sprung up with extraordina
new streets of dwelling houses have kept
them, and other improvements, which w
now enumerate, have succeeded, until Bat
moment, possesses almost all the character
important manufacturing town. For this p
is indebted to the rag and shoddy trade—s
is there in "old clothes." About a dozen
the extensive demand for woollen rags, and the great expense and inconvenience of purchasing them in London, Hull, and other towns, led to the establishment of public auction sales at Dewsbury, Batley, and we believe, Thornhill Lees. But owing to the difficulty of getting the goods to Dewsbury, in consequence of some arrangements between the two railway companies, whose lines are near that town, Batley, during the last six or seven years, has been selected as the depot for rags and shoddy, and there we have now regular sales on a precisely similar plan to the London colonial wool sales. At the commencement, the number of bales offered was not very large, nor was the attendance of buyers numerous; but the advantages of the plan were soon appreciated by all concerned, and now, hundreds of bales, amounting in value to many thousand pounds, are offered for public competition every week. Mr. Cullingworth, Mr. Pearson, and Mr. Rydill, of Dewsbury, are the auctioneers, who so arrange the days of sale as not to interfere with each others sales. Last week we resolved to gratify our curiosity by attending

to watch the proceedings. On our arrival at the Batley station, we were struck with the vast quantity of rags, shoddy, and mungo, heaped up on every hand. A large goods warehouse and a long shed were both filled with heavy bales. A considerable number of railway trucks were piled up with them, and a great number were also "stacked" on the ground, and covered with tarpauling, evidencing the great extent of the trade. We were informed that the great bulk of the rags were from the Continent, being brought from Berlin, Rotterdam, and other Continental depots, by way of Hull. After a hasty glance at the shoddy stores, our attention was first arrested by two foreigners (Germans), who were busy inspecting the bales intended for the day's sale. These, we were informed, were persons who had made consignments of rags, &c., and who were come to look after their disposal. Several men, in long check pinafores, completely enveloping the body and reaching to the heels, were lounging carelessly about, as though the result of the sale were to them a matter of perfect indifference. While the intending sellers and buyers were anxiously speculating on the amount of profit to be realized from these large, somewhat dirty-looking bales, and visions of filthy rags being transmitted into shining gold rose up before them, the pinafored gentlemen were evidently at their ease, their thoughts scarcely belonging to the scene before them. They were accustomed to it, and a bag of shoddy had no peculiar charms. It—

A bag of shoddy was to them,
And it was nothing more.

On conversing with one or two of them, however, we were much pleased with their shrewdness and intelligence. In marked contrast with the indifference of these men was the interest manifested by intending purchasers, who were scattered about singly and in small groups. Some were seated on the bales on the ground, others were perched aloft on the highest truck; and as they thrust their hands into the bales, bringing out some extraordinary good or some exceedingly bad sample, a note was made in the catalogue or note book, to guide them in the coming sale, and the self-complacent smile told plainly enough that while they were not to be done, they were quite ready to seize any good bargain that might offer itself. Although scarcely a word was spoken, it was evident enough that they knew a good deal more than the catalogues told them about the rags, &c., before them, and that such knowledge would be fully exercised during the sale. There were from fifty to sixty of this class present. They were chiefly plainly-dressed men, manifestly having no time or inclination to study the latest fashions; but they were a shrewd-looking, hard-headed lot; and the success which has rewarded their exertions in their peculiar trade, shews them to be of the true English stamp of tradesmen. Plain and homely as was their exterior, they were ready to pay down sums of money which would astonish those accustomed to associate wealth with fine clothes. Those somewhat dusty and greasy coats belonged to men of substance, and who, had you traced them home, you would have seen, prided themselves, like

Dogberry, on "having everything handsome about them." Most, if not all of them, were originally men of small capital, and their present position is mainly owing to their indomitable Saxon industry and perseverance. In the early stages of the rag and shoddy trade, the calling of a rag merchant was scarcely considered "respectable," and men of capital and "standing" held aloof. This left it in the hands of the small capitalists, and well did they use their opportunity. Now, we are informed, the profits are not so large as they were, there being more competition, and the mysteries of the business having become more generally known. About the time announced for the commencement of the sale, Mr. Cullingworth, the auctioneer, accompanied by his assistants, drove up, and then making his way to the lot intended to be sold first, he mounted upon the bale and stated what the lot was, referring purchasers to their catalogues. A circle of spirited bidders was soon formed around him, and in a short time—between two and three hours—there were sold fourteen tons of rags, &c., and three hundred bales of mungo. The sale was conducted in the most orderly manner. No time was wasted, and the only disturbance experienced, arose from the shunting of railway trucks, some of them laden with huge blocks of stone, upon the sale ground. Several times was the company disturbed by the cry, "Mind the waggons," and immediately an engine and trucks thundering past told pretty plainly the warning had been far from unnecessary. We thought the practice of shunting waggons on the sale ground,

during sale hours, a rather dangerous one, but as no accidents have ever occurred—so at least we were informed—we suppose people are reconciled to it."

Having disposed in the main of the subject of rags and shoddy, as raw materials in the shoddy cloth manufacture, we must now devote attention to the manufacture itself, and give, at least, a general outline of its character and economy, and though some of the details may be considered dry, it is hoped that the exposition, as a whole, will not be uninteresting. Various are the descriptions of cloths produced, and wide their range of value: they are sold in all markets, consumed in all countries, and serve alike to adorn royalty and to clothe the crouching slave. The principal article in plain, mixed, and fancy styles, is pilot cloth. Flushings, druggets, and paddings were the goods chiefly produced in the early period of the trade. A cloth, which may be classed under the head of flushings or low duffels, and popularly known by the name of "short ends," was largely made for a series of years, but ceased to be required about twenty years ago, at least in the same order of arrangement: a cloth called calmucks, of a similar kind as near as may be, has, it would appear, replaced "short ends," but in a diminishing ratio. Short Ends were sold to the merchants, principally those of Leeds, in the grey raised (not balk state) and charged by the pound. These goods were for the Continental market, and were dyed and finished by the Merchant before being dispatched thither. As is commonly the case with any description

of cloth which runs out, as it is termed, so with this of "short ends," the quality and excellence were depressed lower and lower, until the "short ends" of the period of their extinction as such, were very inferior to those of primitive production.

Flushings, which are a heavy, coarse, well-raised cloth, were formerly much in request, were, in fact, a leading article in the trade: they have very little finish on them, and probably pilot cloth, which is much neater, has superseded them in a material degree. Flushings have been principally taken in blue and drab, and in substance varying from 1¼ to 3 lbs. the yard, 54 inches wide; price from about 1s. 6d. to five or six shillings per yard. This class of goods is still made, but not largely, except occasionally for Her Majesty's navy, which, especially in war times, requires heavy supplies in a good quality.

Druggets were a mixed unraised cloth, and frequently plaided, of which a considerable quantity was manufactured in various qualities and widths, from about 1s. 6d. to 3s. or 4s. per yard. This cloth was chiefly made at Batley Carr, where a little continues to be produced. Its principal use has been for low carpeting, and to cover and underlie, for the sake of protection, carpets of a superior description. Druggets were mainly confined to the home market, the greatest number being sent to London, many to Manchester, and some to Ireland and Scotland. It is difficult to say why this class of cloth, with which

padding cloth may be identified, has fallen off so much in the demand, unless it be that felt cloth has superseded its use. Drugget cloth (a great deal of it at least) was of a low character, and could not well be made lower, so that either felt cloth or some other, probably a more suitable one, has been substituted.

Red and crimson paddings (unraised piece-dyed cloth) were made in quantity contemporaneously with drugget cloth, and for much the same purpose, though a greater proportion would be used of the former than of the latter, for stuffing and stiffening coat collars, &c.; and it is likely that padding cloth in those showy colours, was used for table-covers, printed and unprinted, and other drapery. Paddings, like druggets, were made in various widths,—viz., from six to twelve quarters broad: in point of character and value, paddings were the better article of the two. Olive padding cloth must not be omitted, being a low article formerly made to some extent, and used chiefly for stuffing coat collars, &c. The markets for padding were identical with those for drugget cloth, except as regards a very low species of narrow red cloth, which has been and continues to be produced in the vicinity of Huddersfield and Halifax, and which is chiefly exported.

Shoddy goods of a different stamp to each other, and varying materially either in quality, make, weight, colour, finish, or some other property, have been from time to time introduced to the market, so that quite a

list of the names of the several cloths may be made out. It is almost impossible to give them all, but the more prominent are as follow:—

Flushings,
Druggets,
Paddings,
Duffels,
Short Ends—Calmucks,
Irish Frieze Cloth,
Witneys,
Mohairs,
Pilots,
Tweeds,
Petershams,
Strouds,
Savelist Cloths,
Army Goods,
Reversibles,
Linings,
Velvets,
Seal Skins,
Coloured Blankets,
Union and Prison Cloths,
Canadian Cloths,
Cheviots.

We proceed to give some explanation relative to such of the foregoing as have not been already adverted to, in order that the uninitiated reader may understand in some measure the nature and uses of the goods. First, Duffels—this cloth is generally made stout, of medium and good quality, well raised and finished soft; it is a warm and useful cloth, akin somewhat to flushings in several respects, especially

weight and finish, but is an article superior to the latter, and produced in more colours. Drab duffels are well known in the market. Duffels are not made, especially in this locality, to the same extent as formerly. At one time they were largely exported to America.

Frieze cloth, a mixed and for the most part an unraised fabric, has been manufactured for a series of years, and continues so to be, probably, in increasing quantity. This cloth is heavy and sound, rather than fine in quality; it is made both in three-quarter and six-quarter widths, and almost entirely for the Irish trade: brown-mixed, claret-mixed, and grey, usually called sheep's-grey, are the prevailing shades, to which may be added a delicate shade composed of a mixture of sky-blue and white: this shade is required for one particular county or district, where the Irish peasant adheres, somewhat after the manner of the Scotch clans-man, to a distinctive attire, traditionally. The Irish generally purchase frieze cloth in the unfinished state, and frequently put upon it their own peculiar large style of frieze, consisting of knobs, or curls of the pile of the cloth. The Irish themselves manufacture frieze cloth to some extent; their goods, however, are not of the neatest, but being thick, genuine, and sound, are very durable. The English frieze is required to assimilate to the native manufacture as much as possible, in order to pass current as the produce of the latter. If any of our readers want to see a coat of freize cloth, which has seen better days, and which is reduced to

the mere expression of threads crossing each other at right angles, he must look on the back of an Irish pig-jobber, or that of an Irish reaper.

Witneys have been made in a variety of plain colours, mixtures, and fancy styles. A large quantity named 'fur witneys' has been used during the last few years for mantle cloths, Ladies' wear; whilst what is termed the french witney, which possesses a very neat style of finish, is in request for the behoof of Gentlemen, in the shape of overcoats principally. Marbled and clouded witneys in showy colours had a decided run about six or seven years ago; they were an attractive article at the price, and remunerative to Manufacturer and Merchant. Doubtless many people, especially those who knew little or nothing of the art and mystery of cloth making, were captivated by the tasteful, and cheap looking garments made from marbled and clouded witneys, and therefore patronized them: fashions change, however, and now not a relic, scarcely, is to be seen of the two styles of witney in question. Woollen fabrics have been now for some time in favour with the Ladies for cloaks, mantles, &c., to the diminution of the demand for shawls. The Ladies have no doubt found woollen cloths warm, comfortable, stylish, and cheap; their patronage has certainly increased, materially, the demand for the products of the woollen manufacture, both in this and other districts.

Mohairs—These have been made in this locality,

more or less, for upwards of twenty years. Mohair cloth is produced both with woollen and with cotton warp, principally the latter, and is, for the most part, finished in a highly lustrous manner, (of which the nature of the materials readily admits) and the pile, which is long, being disposed in a wavy or dappled form, the appearance of the cloth is magnificent and pleasing. Mohair is the produce of the Angora Goat a native of Asia Minor; the best parts of the fleece are used in the Bradford and similar trade. Alpaca, of a kindred nature to mohair is used together with the latter, occasionally, and the two cloths, mohair and alpaca, are almost interchangeable terms; nevertheless there are certain goods, for which each material alone is perfectly suitable. Mohair cloths are sound, and well adapted for overcoats and driving capes; they are warm clothing, and their glossy surface repels the rain, almost like the feathers of a duck: the principal colours are black and brown; but some very fine and delicate shades are produced in these cloths, for trimmings, &c.: the price ranges from about eighteen-pence to five or six shillings per yard. Markets,—home and foreign.

Pilots—These may be designated the staple ar[illegible]icle of the shoddy manufacture; whatever other desc[illegible]iptions of cloth spring up, live their day (a brief o[illegible]e in some instances), and cease to be, pilots hold on their [illegible] course steadily, and the quantity making is, probably, ev[illegible]er on the increase. They are made in mixed colours, but [illegible]y far the largest portion is dyed blue

(Indigo, fast, and logwood,) whilst blacks and browns are the colours next in demand. Pilots are a stout fabric for the most part, with the best possible approach to a fine cloth finish the materials will admit of. The cloth is neat and serviceable at the price, and suitable for extensive consumption, hence the great demand for it. This article is made both in woollens and unions, at prices ranging, for the former, from about one to ten or twelve shillings, and for the latter, from one to five or six shillings per yard, and even upwards in both cases. Its various qualities require the range of shoddies and mungos for their productions. Union pilots are now being made extensively in the district, the quantity increasing year by year; in fact they may now be pronounced the staple product of the trade. The run is chiefly upon a quality at about three shillings per yard. Union pilot cloth is prepared with a bright finish, and this feature is one of its great recommendations, buyers requiring the greatest possible smartness in this article. Slop-sellers make it up largely for foreign markets. Pilot cloth is much worn by sailors; and used for overcoats and other garments. A large quantity is taken for the home trade, and also for exportation.

Tweeds—These are a light, mixed fabric, suitable for summer overcoats, &c.; they have been made, but not to any great extent, in this locality. Tweed cloth is an article belonging legitimately, so to speak, to the fine cloth manufacture. Printed cloths have passed partially under the name of tweeds; these have been

produced with an attractive appearance in a variety of styles, at low prices, and certain manufacturers have had, now and again, a considerable demand for them.

Petershams vary little from pilot cloth, except in the style of finish; this, in the former, consists in the pile of the cloth being formed into little knobs or curls, presenting a very neat appearance. The process is termed friezing or napping, and is a separate finish, not carried on in this immediate neighbourhood. Petershams have been in demand, more or less, for a number of years; sometimes they have been a leading article in the market; their principal use is for coatings. The home trade requires them in good and fair qualities chiefly; and the foreign trade the bulk of the lower qualities.

Strouds—This is a plain woven cloth of a rather low description, and chiefly Indigo-blue, in common with part red or scarlet; it has a broad coarse list, with a narrow stripe of white running between the cloth and the lists; this strip of white is saved in the dyeing of the piece, and the effect is very nice. Strouds have been made chiefly for Government, and the Hudson's Bay Company; the Government has been in the habit of making presents of these and other cloths to the North American Indians, in return, it is said, for some privileges of a territorial nature: strouds were termed 'Indian presents' in the tenders from Pall Mall. The Hudson's Bay Company have, evidently, required theirs for the purpose of traffic

with the Indians. Twenty years since, or upwards, when business was generally inactive in winter, a large order for strouds was usually received in this town, at that season, and accepted with a welcome. This cloth has, of late years, fallen off in demand, and it would seem as if Government has changed the character of the presents, or ceased to make them.

Savelist cloth is a light, plain-woven cloth, chiefly dyed Indigo blue and scarlet, and has saved lists, either white, striped, blue-grey, or otherwise; the bulk made here is with blue-grey, and white lists. Prices range from about two to five shillings per yard. The greater part of this cloth is despatched to North and South America, and the remainder chiefly to India and China; little of it indeed is destined for the home market.

Army goods, of the lower descriptions chiefly, have been manufactured in this immediate locality to some considerable extent, especially Kersey cloth, for soldiers' great coats. Formerly, before the adoption of superior qualities for the army, by the authorities, large orders were executed here for both army and convict cloths; as many as eighty thousand yards of the latter have been contained in one order. This seems a large quantity to be required at once for clothing "convicts;" and at any rate the standing army composed of these is much too large. Part army cloth is still made, but owing to the difficulties which have been experienced with government orders, and the prevalence of general trade, less attention has been

devoted here to this class of business, for a few years back. During the Schleswig Holstein war, about 1850 or 1851, a large quantity of cloth was made in Batley, for the Danish Government: it was of a substantial kind, and of a dark-blue, and sky-blue colour. A blue cloth, of a poor description, called "Turkey cloth," has been made from time to time. This, it is understood, is for the Turkish army—if this cloth may be taken as a criterion of the value of the Ottoman soldier, it is plain he is not rated very highly. The price of the article is only about two shillings per yard, fifty-four inches wide; and, of course, there cannot be much service in it. Gomersal, a considerable village, about three miles distant, is engaged largely in supplying Government with army and navy cloths, of the various qualities required. At Ossett, too, near Wakefield, they are extensively produced. The Ossett clothiers do not deliver all their goods direct, but a portion of them to local merchants in the unfinished state.

Reversibles—These are produced reversible both in colour and quality, and are mostly a stout and good description of cloth, ranging from about five to ten shillings per yard; those with mixed faces have indifferently a mixed or plain coloured back, generally coarser than the face: piece-dyed reversibles are finer on the face than the back, as a rule—it is difficult to particularize, suffice it to say that these goods are made woollen and union, in great variety as to the shades, styles, qualities, and finish. This class of

fabrics has increased rapidly since its introduction a few years ago, and has been instrumental in drawing into the neighbourhood, a body of what is called fancy weavers from the fancy goods' districts. These men have been trained to the work of weaving such complex goods, and are, of course, adepts in the art; a portion, however, of these cloths is woven by the power loom. The object aimed at in making cloth reversible is not so much, probably, that garments may be made, capable of being worn with the two sides alternately in and out, or reversed, as convenience, fancy, or caprice may dictate, though they are so worn to a certain extent, as it is to provide a thick, warm cloth, at a moderate price, which is effected by making two distinct qualities of cloth in one fabric, the face being fine for the outside of the garment, and the back coarse, and consequently less costly than the face; thus, in this way, a cloth which would cost six or seven shillings per yard, if the whole of its substance were composed of the same material as the face, may be produced about eighteenpence per yard less, and yet the cloth is, no doubt, equally serviceable for the purpose required; at least it may be presumed so. Some of the heavier makes in this cloth have passed current under the names of "Moscows" and "Presidents;"—not "Moscows," we should think, because many of them have gone into Russia; but the term "Presidents" may fairly have arisen from the fact of a large quantity of reversible cloth, including the heaviest and most costly, having been purchased by America. The Continent

takes this article freely; and the home trade requires it to a moderate extent.

Linings—These are a plaid cloth principally, and dyed gentian, with a certain proportion of scarlet, crimson, and green. As their name imports, they are used for lining coats, &c. This article has been required in quantity some seasons, but there is, apparently, less doing in it lately. The prices range from about one shilling and sixpence to three shillings per yard; and these goods are nearly all taken for the home trade.

Coloured Blankets—These have been made largely for some years for the American market: gentian, grey, blue-grey, and green are the prevailing descriptions. The widths and qualities vary materially, and consequently the values. The lowest kind is a very inferior grey fabric, at a correspondingly low price. The writer understands that the bulk of these blankets is consumed in the Slave States of America, and that the low grey blankets just adverted to are designed chiefly for the use of the slaves, both as coverlets and materials for garments. Dewsbury and Earlsheaton are the centres of this manufacture.

Velvets, so called from the style of finish, have obtained in the market four or five years. They are made chiefly in grey and brown union mixtures, of various shades and of a medium quality. The peculiarity of the finish in this article is the pile of the cloth being cut very short, and at the same time kept as vertical as possible, so that when complete, the cloth

presents a neat, velvety appearance, something like the fulness, freshness, and closeness of a newly mown lawn. Velvets are used both as coatings and mantle cloths, and are, therefore, patronized by both sexes. The continent of Europe is the great market for them; the American houses take a few; but the home trade has not required them to any noteworthy extent.

Sealskins—These are a cloth made of mohair and other bright-haired materials. They are produced in union mixtures, of various shades—grey, brown, and claret forming the bulk; moreover, plain colours in piece-dyed black and brown, prevail. Some of this cloth is made reversible, and very substantial. The finish of sealskins bears some analogy to that of velvets, but, unlike the latter, they have a long pile upright or flowing: the appearance of a good cloth is superb, the face being plushy and very bright. The reader will, probably, have seen ladies with mantles of this material, exhibiting a dazzling lustre and rich effect. When first introduced, about four years ago, sealskins were made at a good price, say from five to seven shillings per yard and upwards; they have been made since, however, in qualities at lessening prices, until now a considerable quantity is produced at under two shillings per yard. Prices range, at present, from about fifteenpence to five or six shillings per yard, in this locality; but in one or two districts they reach a higher point, some goods being worth about one pound sterling per yard. A species of this cloth, of a finer quality than the sealskin proper, is being made under

the name of deerskins, and very beautiful some of them are. Sealskins and deerskins derive their names from their purporting to be an imitation of the natural skin of the seal and of the deer. They are used for overcoats, mantles, capes, and trimmings; and are taken freely by the home trade, America, and the Continent: for these several markets the demand has been well maintained, and continues active, and the prospects for the future are encouraging. It may be added, in conclusion, that the imitation these goods present is very plausible in the best descriptions.

Cheviots—This cloth is one of the latest introduced, and now in current demand. It is either woollen or union, not much dressed, but soft and neat, and is produced in great variety, as regards quality, colours, and styles; some are plaid, others down-striped, cross-striped, or diagonal. These cloths range from about two shillings and sixpence to six shillings per yard, six quarters or double width, and in proportion for three quarters or single width, in which a portion is made. Cheviot cloth furnishes materials for cheap, useful, and elegant clothing; and it is usual for gentlemen to wear the entire suit composed of it. This article is manufactured in several localities, and much in request in this country; it is also exported.

Canadian, Union, Prison, and Asylum cloths belong to the category of this manufacture. Canadian cloths are made, sometimes, six quarters, but usually three quarters wide, and in mixed colours, unraised,

and of good strength; price ranging from about one shilling to about two shillings and sixpence per yard, for the latter breadth. The other cloths named are both mixed and piece-dyed, chiefly blue, brown, and drab; of medium quality and sound, and mostly unraised. Prices from about two to five or six shillings per yard. None of these cloths are required in large quantity, and their names indicate their use and destination. This enumeration of the several descriptions of shoddy goods is, possibly, incomplete; but it embodies the prominent and leading kinds. So great is the variety of cloths currently produced, each Manufacturer's circle of goods having characteristics peculiar to itself, that no one can possess a knowledge of all that is going on; and Manufacturers are ignorant to some extent, of what each other is doing.

ards Army Goods, which are included in the cles made, they do not fall under the head goods, being required, generally, all wool; inserted in common with the other kinds ed in the district. Let not the world sup- shoddy is execrable rubbish, which it is ious to use in the fabrication of cloth; ntertain the idea that shoddy goods, (so not composed largely of sheeps' wool as dy. These fabrics contain certain proportions of each material, according to the quality of the goods; and the wool used is in an ascending ratio with the value of the cloth, so that the quantity of mungo used in the best goods runs almost to *nil*;

even a small proportion of mungo, used with fine wool, sensibly reduces the cost of the cloth so composed, which for all practicable purposes is equally serviceable as if made of all wool. A large portion of the mungo is of greater value considerably than many kinds of wool which might be named; and whilst wool, as a rule, is much more valuable than shoddy or mungo, there is a great deal of shoddy of better staple, cleaner, and sounder than several kinds of wool. Thousands of tons of wool are used in the manufacture of shoddy goods, yearly; and without being able to state the proportion of fine foreign and colonial consumed, and which is purchased chiefly direct at the London sales, it is probable that the value, if not the quantity, exceeds that of all the other wools, including English wool, which is a large and important element in shoddy goods. This supposition serves to indicate the character of the manufacture, and the fineness and value of the goods. In a general way, it may be said that the price ranges from one to ten shillings per yard; but the average value may be assumed at about three shillings and sixpence per yard, six quarters wide. If a comparison be made between cotton cloth and shoddy cloth, it will be found that the former may be bought, width for width, at a much less price than the latter, proving the fact of a relatively exchangeable, and inherent value in the shoddy goods, otherwise, as all political economists must admit, they would not maintain that high relative position to other cloths, which they occupy in the market. It is gratifying to know that the character of the manufacture is im-

proved considerably, both as regards the executive part, and also the average quality and value of the entire production. The workmanship of this day is superior to that of former days; and almost any kind of cloth which might be selected now would far excel in finish and appearance the same description of cloth produced twenty years ago. The introduction of cotton warp, especially as used in pilots, has impressed a distinctive feature on the character of the manufacture, and has contributed, probably in no small degree, to its prosperity and stability. As regards the relative merits of woollen and union cloths, the latter are, price for price, generally neater, smarter, and cheaper looking than the former; the unions are also sounder cloth, because of the greater strength of cotton, as compared with woollen warp. Whether union cloth will, as a rule, appear equally well with woollen, after being worn half or two-thirds out, is a question; and it may be said for woollen cloths that they are softer and fuller in the hand. Unions do not compete much in the higher priced goods, say from six to ten shillings per yard; these are chiefly woollen, and in pilot, petersham, and witney finish. The tendency of the manufacture has been, for some years, in the direction of using cotton warps increasingly, so that the consumption of these is now immense, and the trade in them has become quite important. Cotton warps and power looms have gone hand in hand; the use of both has been simultaneously developed, which is accounted for by the fact that they are well adapted to each other.

The principal local markets for the goods are Leeds, Huddersfield and Bradford. Leeds was formerly the great emporium, and probably takes the largest quantity still; but the other two towns have risen rapidly into important markets, in connection with this trade, Huddersfield in particular. The bulk of the shoddy cloths exported to the United States and Canada, and probably also to most parts abroad, is despatched by the Huddersfield merchants. Bradford certainly has become, especially during the last few years, a very respectable customer, and appears to be devoting more and more attention to this branch of business. Bradford disposes of its quota of shoddy manufactures principally on the Continent of Europe, doing only a partial business in them with the American markets. Bradford enjoys facilities for prosecuting the Continental trade, because many of the shipping houses consist of gentlemen from Germany and other parts of the Continent. These houses are engaged chiefly in the stuff trade, and have found it convenient to include in their sale list the productions of the shoddy loom. Leeds is a market of a more general kind than either Huddersfield or Bradford as regards shoddy cloths; it is more constant throughout the year, because Leeds supplies them to all markets, more or less, both home and foreign. This important town transacts a great business with the London, the country, and also the Scotch and Irish markets. Probably, the bulk of shoddy cloths for the home market passed, until recently, through the hands of the Leeds merchant; now the greater part is sent direct from the factory to

the London, Manchester, Liverpool, and other houses. For this result, the neighbourhood is indebted in no small degree to the London and North Western Railway, which runs through the township, and through Dewsbury. This section of the railway was opened in 1848, and has contributed largely to the promotion of trade, to the convenience of travelling, to the facilities of business in various ways, and to the general advantage of the district.

We purpose now to give a sketch of the various processes connected with the manufacture of shoddy cloth, with a view especially to mark the various improvements which have been made in the machinery by which those processes are carried on. We shall take them in the order in which they stand relatively, beginning with the process of wool sorting. Allow us to say that we pass over, here, the preparation of shoddy and mungo, as that has been explained in a previous part.

Wool Sorting—This preliminary work in the manufacture is an occupation which now engages a number of hands in a regular way. Prior to the use of fine and colonial wool in the business, sorting was not much required, only casually, and not in a very precise manner. Colonial wools are now bought at the London and Liverpool sales, and brought direct, in many cases, into the hands of the sorters, on the premises of the Manufacturer. The only utensil requiring notice in this process is the steamer or

warming apparatus, which materially assists the sorter in opening the fleeces.

Wool Scouring—This has become general, as regards fine foreign and colonial wools; but it is not usual to scour English wools, preparatory to being mixed. The wool scouring machine was not brought into use till about 1843. The machine is simple, but very useful in cleansing the wool from the oil and grease, with which it is naturally impregnated, as well as from any dirt whatever, inherent or adherent; soap and alkali are the principal solvents used in the process.

Willeying—First of all the "teazer" only was in use for opening the wool, and mixing the materials together; afterwards the shake willey, a stronger and coarser toothed machine, was introduced, for the purpose of rough-cleaning the materials, by beating out the dust and dirt, and, at the same time, of giving them a preparatory mixing, prior to their being oiled and passed through the "teazer." The latter machine has been improved, principally by having the swift and workers ranker toothed; by this means it is better adapted to fine work. There is also, now, an improved mode of effecting the mixing of wools and shoddy or mungo: the work is done in a more careful, complete, and scientific manner. Twenty or thirty years ago, it was a common practice for the weavers and spinners to be called from their proper occupations to assist in "blending," as the term is, and this without any re-

muneration, excepting a largess of beer to allay their thirst, and fortify them against the shoddy fever; thus these men had not such a direct interest in the work as to induce, or such an aptitude for it, as to enable them to do it well. Blending has long been altogether done by persons appointed solely for the purpose; and the weavers and spinners have been accordingly relieved from the task, without any diminution of their wages on this account.

Scribbling and Carding—the two next processes, have been materially improved, as might naturally be expected, from the advantages of experience. The scribblers and carders now in use are of larger dimensions than formerly, and present a greater area of working power; the cards are better adapted to the purpose, and the art of using them is more perfectly understood: no doubt there is room for further advances in the scribbling of wool, as there are few persons, probably, who are well versed in a knowledge of the principles, which govern the most advantageous management of the process:—overlookers differ in their opinions as to the details of the cards most suitable for certain kinds of work, and there are no rules laid down for common observance; each acts, therefore, according to his own views on the subject. The machines have been altered more in size than in principle; and though three and even more swifts in one machine have been tried by some, the old plan of two swifts in a scribbler or carder, obtains generally. Latterly there has been an addition of working capac-

ity made to the fore-part of the scribbler, which is serviceable in expelling rags or other hard substances from the wool, before it reaches the first swift. Condensers have not been much applied to the trade, and, indeed, it may be assumed, that they are not well adapted to any but long wools, or to produce goods other than of a worsted character. A patented machine, or apparatus, has been recently brought out, the purpose of which is to carry the wool from the scribbler in the form of an endless sliver to feed the carder, dispensing with the services of an attendant upon the latter; it is said to economise cost, and to perform the work more perfectly than the old mode. So far, this invention has not been availed of in this immediate locality, or in the district at all, except very partially; this does not necessarily imply that the new may not be superior to the prevalent method of feeding the carder, but it serves to shew the slow progress which is made in abandoning old and tried plans for novel and experimental inventions: with reference to such matters one may venture to quote Pope. He says—

> "Be not the first by whom the new is tried,
> "Nor yet the last to lay the old aside."

Spinning—Under this head are to be noticed several changes and alterations of a convenient and economical nature. Slubbing the cardings preparatory to being spun into warp and weft, is substantially the same as ever; but there has been an important change

in the method of piecing and dealing with the cardings, by the application of the "piecing machine," which was introduced about twelve years ago, and is now in general use. The machine is of a very ingenious character, and efficient in performing its allotted work; the principal feature is, that it does the work of three or four hands, and displaces the manual labour of children; to such an extent has the use of these machines superseded such labour, that had this state of things existed prior to the passing of the Factory Act, it is probable the measure would never have been enacted. It is most likely, indeed, that the operation of the Factory Act upon the trade, prompted the invention of the piecing machine, and thus, though the "act" was much disliked by Manufacturers generally in the first instance, and has never become quite palatable with all, it has not been altogether without beneficial effect in their favour. This machine effects a saving in the work, and renders the mill owner less dependent upon the labour of Juveniles, of whom the supply has been scanty, and who, sometimes, (particularly on holidays,) take it into their head to scamper off, and leave the work standing. Notwithstanding the great displacement of "young hands" as piecers, there are, or need be none out of employment, in fact a vacant "hand" is quite scarce in the labour market; and the class in question is now in the receipt of higher wages than before the use of piecing machines; this seems anomalous, and one is at a loss, almost, how to account for the circumstance, but, no doubt, the children have been drafted into

other branches of the manufacture, such as "winding," "picking," and power loom weaving on the part of larger boys and girls. The machine itself requires to be tended by a person of twelve to fifteen years of age: boys are usually employed to do the service. Spinning was begun with one thread on the wheel, as has been noticed in the early part of this work; the "wheel" gave place to "billies" and "tommies," which at first, probably, did not contain more than twenty spindles; they now number seventy to ninety; and the "horse," a modern machine of the same class, has variously from one hundred to one hundred and fifty spindles, and in some cases upwards. A billey, tommy, or horse, is worked by one man, assisted, conjointly with the piecing machine, by a young lad; thus the means of producing yarn a hundred fold, so to speak, have been devised. These machines are propelled partly by steam power, which was not formerly the case, consequently the largest of them, is, in all likelihood, more easily managed by the workman than the first small machines were. The spinning of weft on bobbins, instead of into cops, has become very common of late, particularly since so many power looms have been put in motion; this is economical both in respect of preventing waste and saving labour, thus restraining cost and securing advantages. Billies, tommies, and horses, are chiefly employed in producing slubbing and weft, the former of which is re-spun into warp, mostly, but partly into weft also, especially when the weft is required very small: the process of spinning yarn out of slubbings

is effected by a machine termed a "mule"; formerly this machine was unknown in the trade, but was introduced to the neighbourhood nearly thirty years ago: in the course of a few years mules came into general use, dispensing entirely with the jenny, which, theretofore, was the utensil by whose aid the work now allotted to the mule was performed: the jenny was worked by a male adult, and from containing about twenty spindles, rose ultimately to number fifty or sixty spindles. The transition from the one-thread wheel (in use previous to the introduction of the shoddy manufacture) to the jenny, was one of considerable importance, facilitating greatly the production of yarn; and the change from the jenny to the mule was also very important, but not of a more marked character than that from the one-thread wheel to the jenny. In a previous page it is said that the one-thread wheel gave place to billies and tommies, and in this, that it was superseded by the jenny; this is true in both cases, because the one-thread wheel had to perform the offices of both these kinds of tools; and when the billies got into operation, they executed all the work of which the one-thread wheel was capable, in a superior manner to the latter; but the jenny was better adapted for spinning warp than the billey, and hence was both requisite and very useful. The jenny was, we believe, invented before billies and machines of this class, and probably suggested the idea of the latter; nevertheless, so far as this locality is concerned, the jenny would have been useless, apparently, without the intervention of

the billey as a preparatory agent. Our forefathers, so to speak, found it quite a sufficient task to wield or work a jenny of about twenty spindles, and, probably, the modern jenny of fifty or sixty spindles would, owing to its better construction, be managed with less toil than the other. The mule is both simple and ingenious, and answers well the purpose it has to serve; it is a very useful, and, we may almost say, an ornamental machine; in operation its motions are unique: the work also is better done than by hand on the jenny. A pair of mules is generally worked by one man, assisted by two or three boys and girls. Mules vary in the number of spindles from three or four to five or six hundred per pair, their size between these extremes being determined, mostly, by the dimensions of the rooms to receive them: it will be understood that mules are propelled by mechanical power, and the principal use of the lads and lasses, is to piece the broken threads which occur in the process of spinning. In consequence of the use of cotton warps to so large an extent, mules have been thrown idle, more or less, and mule spinners have had accordingly, for several years back, only partial and precarious employment; many of them have clung to their occupation, though deriving but a bare subsistence from it, in the hope that a return to the use of woollen warps, in a greater measure, will take place, and better their position. The diminished requirement for the mule, has led to its being dispensed with in some cases, in order to make room for other and more necessary machinery. Recently there have been

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been simply a mistake—a mistake, however, of a serious nature, causing the dilatory districts to lag behind in the race of competition, and to suffer loss of business. We talk about rapid progress in machinery, but really this instance of the history of the mule from first to last, speaks a different language, and confirms the maxim, that there is no rule without an exception.

Warping, which is the process of forming warp into webs for the loom, under the care of young and adult females, remains almost unchanged in any respect. Some Manufacturers have adopted the "warping machine," for there is such a thing, but it is uncommon in this locality; however it is not unlikely that the present scarcity of "hands" may direct attention to this machine, and bring it into extended use. The prevalence of cotton warps has diminished the number of "warpers," and prevented them, as a class, from increasing with the progress of the trade; they are, nevertheless, now paid a higher rate of wages than at any previous time.

Weaving constitutes one of the principal elements of labour in the fabrication of cloth, and the cost of it, not unfrequently exceeds that of the spinning. Weaving is an art that was practiced in high antiquity; the weaver's shuttle is mentioned in the Book of Job. Hand-loom weaving—simple and unsophisticated weaving by hand—has been, for anything we know to the contrary, a current description of labour

for thousands of years, but it has been reserved for the present age, so rife in astonishing and remarkably useful inventions, to witness the art of weaving assume a new phase of a very important character: that mighty power steam, has extended to the process its wonderful aid, and we have now the power loom as an important agent in the manufacture of shoddy and other cloths. The power loom invented by Cartwright is a modern machine, which of late years has progressed rapidly in its application to the woollen manufacture; within the last ten or a dozen years, hundreds upon hundreds of power looms have been set to work in the township of Batley, and this is but a specimen of the shoddy district: they are chiefly attended to by upgrown females, under the supervision of men termed "tuners"; the earnings of these females average about ten shillings per week,—this estimate may be a little under the mark, possibly; so great is the demand for power loom weavers, that women are quite at a premium in the labour market, and their wages now average twenty-five to thirty per cent. more than they did before the advent of the power loom. Men and boys are only in a very small degree employed in power weaving, and it seems strange that men should not have engaged in this occupation in greater number; a man assisted by a lad or lass, can manage two looms, enabling both to earn fair wages. There has evidently been a disinclination on the part of hand loom weavers to take to the power loom, and the fact that they have not been under the necessity to do so, goes to prove that as a

body they have still found employment in their own vocation, or have turned to other labour, in preference to that of power loom weaving; no doubt individuals have suffered temporarily, whilst the power loom has been coming into general use, but in the mass, hand loom weavers have not had to bear any marked privations arising from their formidable rivals, power looms; this will appear when it is stated that the wages paid to hand loom weavers are good, and substantially the same as before the use of such a large number of power looms; indeed their wages were never higher than at present. This state of things is explicable on the ground that the trade now requires a vast deal more labour in the shape of weaving than it did a few years ago, partly in consequence of the extension of the business, and partly on account of the altered character of the manufacture. What with the extensive fabrication of goods with cotton warps, which require more weaving by about fifty per cent. than woollen warps, and the manufacture of double cloths, and fancy styles, largely—goods which involve on the part of the weaver, double and triple the amount of labour of ordinary goods, yard per yard, weaving, in the aggregate, is required on a greatly extended scale; indeed, it would seem that if the power loom had not been introduced, there could not have been anything like the developement of business which has taken place.

Milling, or fulling the goods, the object of which is to felt them (by pressure) to the required substance,

and also to cleanse the cloth, is an operation upon which much depends, and skill and care are requisite to its success. Milling has not altered, materially, from the first, the *modus operandi* employed, and the construction of the "stocks" being, for the most part, the same now as then; it is proper to remark, however, that the "driver," a fulling machine, which exerted its pressure on the cloth in a horizontal manner, might, up to a recent period, be seen rarely, but is now, we believe, almost quite disused: the writer has been told that the driver was the original contrivance for fulling cloth, and that the present fulling stocks, named in contradistinction "fullers," were deduced from it. With regard to the method pursued, one does not now, certainly, see the "old clothier" in his grease-soiled habiliments, busied at the homestead in imparting to the raw pieces of cloth, a solution of pigs' dung and urine, prior to their being sent to the mill; formerly, every Manufacturer had the necessary requisites for carrying on this preparatory process, that is to say, receptacles for pigs' dung and urine, and working implements; these receptacles, the contents of which were not of the most agreeable nature to the olfactory nerves, were, nevertheless disposed about the dwelling, with no precise reference to æsthetic or sanitary principles. The operation now takes place at the mill, more conveniently in every respect. It is interesting to look back upon a scene of that kind, as presenting a phase of the economy of the manufacture in bye-gone days, and as serving to remind us of the different method pursued at this

advanced period of the trade. Thirty or forty years ago, the milling of this locality was done chiefly by water power, in the vicinity of Dewsbury particularly. Many an old miller will recollect with interest, his "Greenwood" milling days of yore; there was something romantic about the place—the mill stood in a sequestered nook, and commanded a view of fine meadows and scenery, the chief feature in the landscape being the river, which furnishes the stream to drive the waterwheel attached to the mill. The occupation was a sort of pleasing hardship,—pleasing on account of the relief it afforded from the monotony of home, change of scenery, and the boon companionship it fostered; a hardship inasmuch as the comforts of home were wanting, and the mode of living was but a series of temporary shifts, for be it understood the millers were there days and nights consecutively. Milling now requires knowledge and experience on the part of the workman, to enable him to deal with the varied character of the goods, especially to avoid injuring the delicate colours in mixtures: some goods are as different to others as possible, with respect to their milling properties; and the great range of qualities, and other conditions, require the care of attentive, intelligent, and well versed men. The materials used in milling are at least one more in number, by the modern use of "alkali," or soda ash, a substance used to a large extent, as being more effective than urine or old wash, but the latter is preferable in some respects; it is less liable to affect the colour or strength of the cloth. Of late, a new ful-

ling machine, varying materially in construction, and in its process, from the present fulling stocks, has made its appearance, and has come into operation both in this locality and elsewhere, to a limited extent. The new machine has, we believe, given satisfaction in a general way to those who have tried it, and it may, ultimately, supersede the old fulling stocks; but this event must, of course, await the decision of time. It is said the machine is well adapted for some kinds of goods, particularly very sound goods, and that it thickens the cloth with less waste, or loss of weight, than the stocks; but, according to present experience, the new invention is not applicable to all the varieties of fabrics, in like manner with fulling stocks. One word the writer would add—if it be feasible to construct a machine to work with less risk of damages to the cloth than accrues from the fulling stock, yet equally effective as the latter in doing its work, it is highly desirable; for although the fulling stock is made very firm and compact, yet it consists of so many parts or jointings, and has, from the ponderous weight of the feet, constantly rising and falling, such a strain upon the parts, that accidents to[o] frequently occur, causing damage to the cloth a[nd] to the Manufacturer. Undoubtedly fulling [ma]ght be by superior care in the c[lo]th and the execution of the w[or]k ite[r] structed than at pr[es]ent improvement that ca[n]

Raising-[ma]

considerable change. The raising gig, introduced upwards of twenty years ago, initiated a more economic, and at the same time an improved method of raising shoddy cloths; the work is of a more finished character than it was by hand raising, that is to say solely by this process; because hand raising is by no means done away with, but is practised or applied in a different form, in the shape of dubbing, nelleying, and cross raising. Teazles are much used in connection with the raising gig. Hand raising, formerly, without the aid of the gig to break in the goods, as it is termed, was certainly very laborious; and it was the custom to allow the men a plentiful supply of beer, with a view to enable them to sustain their part in the work. This custom has fallen away; and thus, in this case, as well as in that of willeying, modern usage operates in favour of temperance and sobriety. In conclusion, the writer would add, that raising is a very important operation, and that the excellence of the finish of the cloth materially depends upon its being well performed.

Dyeing—This important process is now conducted in a superior manner, as may reasonably be expected, from the teachings of experience. Modern appliances, such as mechanical power, steam cisterns, and improved washing machines, contribute to this result; but as regards the shoddy cloth business, the most important advance made in dyeing, of late years, consists in what is called "burl dyeing," a process whereby the cotton threads, and foreign substances of

the like nature in the cloth, are dyed, and by this means the piece is neater and more handsome. The cost of the operation may be deemed small, in comparison with the benefit accruing; indeed the cost is *nil*, considered (which is probably about the mark) as not exceeding the expense of burling and drawing unburl-dyed cloths; the advantages, then, of burl dyeing, which is a process separate from and in addition to woollen dyeing, are, that at about the same cost as before, the cloths are rendered more sightly, more perfect, and far more satisfactory; besides which, they are much readier passed on to subsequent stages: indeed the business is greatly facilitated by burl dyeing, and its application has proved a great boon to the trade. Formerly, when the stalwart frame and brawny arms were a great power in the economy of labour, the heavy task of turning the "winches," as they are called by dyers, was performed by hand; now, the matter is accomplished by a little gearing propelled by steam power. This steam is a wonderful agent, relieving man in almost every ramification of labour, from that severe bodily strain and muscular exertion to which he was subjected before its application. The art of dyeing is, perhaps, not so well understood, either on the part of the professional dyer or the Manufacturer, as its importance demands. By the former, a knowledge of it seems to be picked up, as it were, rather than acquired by being taught its principles scientifically; whilst the latter does not deem it essential that he should possess a thorough acquaintance with this department of the manufacture:

however, some day or other, probably, a Manufacturer's education and qualifications, will not be considered complete without the knowledge in question. In the meantime it behoves the professional dyer to study the principles of his art, with a view to improve his practice in order to produce the best results possible, both as regards excellence of workmanship and economy of cost.

Finishing, or dressing the cloth, is the next and last process of importance: it may be considered as including burling and drawing. In the early days of the manufacture, little was done in the way of finishing, by the Manufacturer; many of the goods were merely brushed, some were hot-pressed, and others delivered to the Merchants in the undressed state. Of late years, however, in fact for upwards of thirty years, the trade has supplied the goods in the dressed state, as a rule; and now, a mill is not considered complete without adequate and suitable appliances for dressing the cloth produced thereat. Some thirty years ago, the raised goods were brushed by hand over a table; in like manner, if required, they were cropped or cut by shears, hence the men who performed the operation were called "croppers." The introduction of the brushing machine dispensed with the old and clumsy method of brushing by hand; and that of the cutting machine abolished the use of the shears. The work, in both cases, is far more efficiently done, and more economically. "Cropping," we believe, was never much applied to shoddy cloths, because the

practice was falling away before these were being finished in any material degree, so as to include cutting or cropping; indeed before shoddy goods were much made. The adoption of machines for the operation, led to a great extension in the department of dressing the goods: considerable attainments have been realized in the art, and highly finished cloths are now the order of the day. The "Lewis" and "Perpetual" cutting machines (so called), brushing and steaming mills, and hydraulic presses, with the usual *et cæteras*, constitute the appliances of this important branch of the manufacture. "Glossing" was formerly much in vogue, but has fallen off of late years. This style of finish is highly lustrous, but oily; and is produced by passing brushes, saturated with fine oil, over the surface of the cloth, followed by a heavy, hot iron, causing the oil to assume a very shiny appearance. The principal implements used in the process are a table, 10 or 12 yards long, 1¼ to 2 yards wide; and two heavy iron plates, quite smooth on the under surface, termed "glossing plates;" these correspond with the breadth of the table, and measure about twelve inches from back to front edge, by two or three inches in depth or thickness; and, in addition to the foregoing, an oven or furnace to heat the plates. Over the table, and running the same length, is a tramway, on which the framework of wheels, from which the plates are suspended, carries the latter, propelled and guided by a man on each side, over the piece spread on the table, these men being preceded by other two, for the purpose of brushing the cloth and, at the same time,

laying on the oil; in this way they travel the length of the table again and again, ever and anon winding the portion of finished cloth, on to a roller, and bringing up a fresh instalment of the unfinished piece. Only one of the glossing plates is used at once; the two are required alternately, one being heated whilst the other is in operation. The reader will, we trust, excuse this, we fear imperfect and tedious description of glossing; the writer would not have troubled him, but he deems it advisable to sketch the process, on account of the probability there appears to be of this style of finish being discontinued altogether. There is, at present, an earnest disposition, on the part of Manufacturers, to produce styles of finish calculated to engage the eye and please the fancy, and to enlist the aid of this art to assist goods in inducing ready sale. No doubt there is great scope for bringing out varieties of finish that would command admiration and a market; and, as the world does not stand still, we may expect to see surprising, or at least, noteworthy results in this direction.

It will not, we hope, be deemed out of season to refer to an event which arose from the introduction of cutting machines, whereby the occupation of the "cropper" was gone, and the shears abolished. About the year 1812 or 1813, the new machines were coming into use in various places, but they were met by the most determined opposition on the part of the "croppers," and in many instances, these misguided men proceeded to acts of violence, especially

directing their attacks against the machines themselves; in fact they destroyed them wherever they could. At length the "Luddites," as they were designated, composed chiefly of "croppers," made a strong attack on the premises of Mr. Cartwright, of Rawfolds, near Leeds, who had procured some of the machines; but Mr. C. having had intimation of the intention of the rioters, had taken efficient measures for defending his position; he obtained the aid of a number of soldiers, who were posted in the mill: there was firing on both sides, and several of the rioters were severely wounded, if one or two were not actually killed. The beseigers were signally defeated, a number of them being captured on the spot; but the most striking part of the story remains to be told. No fewer than sixteen or seventeen of the ringleaders were hanged at York for their illegal and violent conduct in this affair. Such was the state of the law; and as laws are an index to the condition of Society on the one hand, or to the character of the Government on the other, it is clear that either the former or the latter was bad, or possibly both. We are shocked to hear that so many persons perished on the scaffold for an offence which, though very heinous, would not now be punished near so severely; and we have good reason to congratulate ourselves that the laws now breathe a milder spirit, founded, we trust, on the improved and milder character of the people. As regards the unfortunate rioters, it was not only wicked, but foolish to oppose the advancing tide of improvement; yet, ignorant as they were at that time,

of the valuable agency of machinery and its beneficial tendency, and with the prospect of severe privations before them, it is very easy to conceive that these men felt quite justified in taking the course they pursued; but they were wrong. Let it be our care to learn a lesson from their sad experience; and as we have seen how the extension of machinery has expanded and increased trade in a manifold degree, involving a vastly augmented amount of labour, which is well remunerated; and as we have seen, too, how this cause has promoted the wealth, comfort, and happiness of the people, together with the strength and glory of the state, let us, knowing these things, avoid committing similar errors and excesses, and be prepared to recognize in the changes of the day, the awakened and powerful intellect of man, engaged in working out the general well-being of the community—to recognize in those changes the marks of progress in arts, science, and civilization.

Having already treated on the subject of the raw materials of the manufacture, so far as shoddy and mungo are concerned, and as regards wool in some measure, we will now resume the point with a view to complete our remarks on wool, and to refer the principal commodities consumed in the processes of the manufacture, which have not been yet noticed.

English wool is largely used in the shoddy cloth manufacture, viz., "shorts," as they are termed. "Shorts" consist of the shorter parts of the fleece,

not altogether suitable for combing; they are, however, better adapted to clothing purposes than the longer parts of the fleece; these are used in the worsted business. "Noils" are also consumed in the shoddy manufacture. The supply of both shorts and noils is drawn chiefly from Bradford, the principal market for English wool in the district; a portion of the supply is from Leeds and Halifax: formerly Wakefield was the principal market for the supply of clothing wool to this neighbourhood, but, now-a-days, no one hardly ever thinks of it in this respect. Wakefield has evidently declined as a market for long and short wool; and one cannot but regard it as a very serious matter for any town to lose a branch of trade of a legitimate and profitable character, without gaining any corresponding advantages whatever; and to see any town retrograding in position, whilst surrounding towns have been advancing in commercial importance, is calculated to inspire all those who have the trading interests of their respective localities at heart, with vigilant care to protect and sustain those interests.

In addition to English and Australian wool, (the latter of which has been treated specially before,) foreign, of various kinds, such as German, Egyptian, Turkey or Turkish, Russian, and others are used, besides Scotch wool. The writer ventured to state his opinion before a Committee of the House of Commons, in 1859, that 2,000 tons of wool were yearly brought from Bradford, for consumption in Batley and

Batley Carr; and upon being requested to give the probable quantity for Batley alone, the writer named 1,500 tons, and though those who prompted "counsel" to ask the question seemed astounded, and demurred to the opinion, still, may be, it is not so very unsound after all; for instance, there are thirty-five mills in the township of Batley; well 1,500 tons are 14,000 packs, these divided by fifty-two weeks, give say 269 packs per week, being about 7¾ packs for each mill in the same space of time, or little over one pack per day for each mill. When the quantity is analyzed in this way how insignificant it appears, even as regards English wool; and were it not that Colonial and other wools are largely used, especially Colonial, it would follow that either a mill does not consume wool in any material degree, or that the writer's opinion did not overshoot the mark.

Olive, Rape, and "Price's Patent" are the oils chiefly used in this district; formerly rape was consumed principally, but now olive, we should say, a great portion of which is directly imported from the foreign markets by the Manufacturers. Olive oil has gradually increased in use, concurrently with the improvement which has gone on in the character of the cloths produced. Many new compounds have been brought into the market, intended as substitutes for oil, but with small success, experience proving that the genuine article answers best. Oil is an expensive material; and hence the motive to mix up something or anything of a cheap nature, on the part of the scheming seller,

and the temptation to try cheap substitutes on the part of the Manufacturer. It is not undesirable, certainly, to have the addition of new and cheaper liquids of an oleaginous nature, adapted to the purpose; but their forthcoming appears by no means a contingent event. Some of the substitutes are simply ridiculous, and not deserving of the least notice, being practically not only not beneficial, but injurious.

Dyewares of various kinds, suitable for common colours chiefly, are required to a considerable extent, logwood being the article of greatest weight. In addition to logwood, sanderswood, barwood, fustic, sumac, madder, bichrome, alum, copperas, oil of vitriol, pyrolignate of iron, blue, and finishing spirits, are the wares principally consumed; prussia of potash is partially used. The supply of these several commodities is drawn from Liverpool, London, Hull, and from the towns and district surrounding. There is no want of representatives in the oil and drysaltery trades; these two branches of business seem to be pushed almost more than any other.

Having disposed of the subjects of the materials used, and the processes carried on in connection with the manufacture, we now proceed to notice another division of our theme.

The following statement presents a tabular view of an approximate calculation relative to the operatives engaged in the shoddy manufacture and the shoddy

trade, in the township of Batley, specifying the number of persons employed in the several branches of labour, together with the weekly earnings of each class. It also, on the same principle, but with a nearer approach to certainty, gives the number of "billies," "tommies," and "horses," with their aggregate of spindles, at work. Also the total of mule spindles, and the amount of nominal horse power employed; and moreover records, as ascertained facts, the number of mills and steam engines in connection with the business. These particulars are the result of a computation made for another object, in 1858, and though some changes have occurred since, especially in relation to the increase of power loom weavers, they may be taken for all practical purposes, as applicable to the present time.

Rates of Wages paid in Batley, distinguishing the different descriptions of Workpeople.

DESCRIPTION OF OPERATIVES.	NUMBER.	WAGES PER WEEK.	TOTAL. £ s. d.
Rag Sorters (women)	500	6s. 6d.— 7s. 0d.	162 10 0
Foremen over do.	40	20s. 0d.—25s. 0d.	45 0 0
Carriers (rag trade)	10	18s. 0d. ——	9 0 0
Rag Grinders	130	16s. 0d.—26s. 0d.	119 0 0
Willeyers	100	18s. 0d.—20s. 0d.	90 0 0
Slubbers	220	30s. 0d. ——	330 0 0
Servers (girls and boys)	92	4s. 6d. ——	20 14 0
Do. do.	185	8s. 6d. ——	78 12 6
Attendants on Piecing Machines (boys)....	148	6s. 0d. ——	44 8 0
Piecers (boys and girls)	72 148	1s. 9d. —— 3s. 6d. ——	32 4 0
Card Cleaners (young men)	60	10s. 0d. ——	30 0 0
Overlookers	30	35s. 0d.—40s. 0d.	56 5 0
Mule Spinners (say half employed)	100	28s. 0d.—30s. 0d.	70 0 0

(Rates of Wages, &c., continued.)

DESCRIPTION OF OPERATIVES.	NUMBER.	WAGES PER WEEK.	TOTAL. £ s. d.
Mule Piecers (boys and girls)	150	3s. 6d.— 5s. 0d.	30 0 0
Pluckers (boys)	35	7s. 0d. ——	12 5 0
Warpers (women)	180	8s. 0d. ——	72 4 0
Weavers (hand loom)	1260	18s. 0d. ——	1134 0 0
Do. (power loom)	500	9s. 0d.—10s. 0d.	225 0 0
Fullers	108	25s. 0d. ——	135 0 0
Raisers	150	13s. 0d.—22s. 0d.	123 15 0
Dyers (foremen)	15	40s. 0d. ——	30 0 0
Do. (men)	85	17s. 0d. ——	72 5 0
Tenterers	140	25s. 0d. ——	175 0 0
Burlers (women)	350	6s. 6d.— 7s. 0d.	113 15 0
Drawers	70	30s. 0d. ——	105 0 0
Finishers (men)	150	20s. 0d. ——	150 0 0
Do. (boys)	50	7s. 0d. ——	17 10 0
Engine men	35	30s. 0d. ——	52 10 0
Do. boys	25	10s. 0d. ——	12 10 0

(Rates of Wages, &c., continued.)

DESCRIPTION OF OPERATIVES.	NUMBER.	WAGES PER WEEK.	TOTAL. £ s. d.
Carriers	50	16s. 0d.—18s. 0d.	42 10 0
Book-keepers	35	25s. 0d. ——	43 15 0
Wool Scourers	35	18s. 0d. ——	31 10 0
Power Loom Tuners and Assistants	50	15s. 0d.—25s. 0d.	44 5 0
Foremen of Weavers	40	20s. 0d. ——	40 0 0
Wool Sorters	35	20s. 0d.—25s. 0d.	39 7 6
Watchmen	25	18s. 0d. ——	22 10 0
TOTAL	5,408		£3,812 5 0

(Number of Mills, &c., in Batley.)

Mills, in Batley	35	Mule Spindles	35,000
Billies, Tommies, and Horses	220	Steam Engines	35
Do. do. do. Spindles	17,500	Nominal Horse Power	1,089

As before stated, this table was drawn up in 1858. On reviewing it now, the writer judges that, on the whole, the rates of wages quoted are below the mark, as applicable to the present; in fact wages have advanced since that time; but as the calculations were the product of several gentlemen, and are consequently, or presumably at least, of a more reliable nature than the estimates of an individual merely, the writer has adopted them in preference to drawing out any new ones of his own only. Higher wages are now paid in the shoddy manufacture, throughout its various departments of labour generally, than were formerly paid—hand loom weaving, which has engaged the greatest number of hands of any one branch, having participated in the advance equally with any other large division of the employment, requiring male adults; but, unquestionably, the wages of females have advanced in a marked degree, since the introduction of the power loom: certainly female labour is in great demand, and at a premium in this district: the factories absorb this labour to such an extent that domestic servants are hardly to be had, even at good wages—wages much above the level of previous times. At the power loom, females can earn ten or eleven shillings weekly: a rate of remuneration which presents a strong inducement to them to pursue the calling. Wages are now paid, generally, in a more satisfactory manner than was the case some years ago; the employers are in a better position for enabling them to pay wages, in a systematic and punctual method. For years and years it was customary for

some, if not indeed the principal part of the employers, to deal in provisions—chiefly flour and malt—for the purpose of supplying their "hands" therewith. This was a clumsy contrivance for promoting the convenience of the master, on the one hand, and the workman on the other; that of the former, by enabling him to pay part price of the labour in the shape of goods had on credit; that of the latter, by his having an understood right to ply the master's stores till the reckoning day. Coeval with this state of things, reckonings between masters and men were irregular; and at the best, not oftener than once a fortnight. The abolition of what may be termed the truck system in a mild form, some fifteen or twenty years ago, was an enlightened step; and one which must be regarded with complacency and satisfaction by both parties. One cannot look upon the trade, at that time, but as being fettered, trammelled, and as struggling into that life, activity, form, and freedom, which characterize its existence at this day. Young men have little if any notion of the immunities and advantages they enjoy, in relation to the question of labour, as compared with their forefathers: the departments of labour are better defined, and as to the great body of workpeople, they are confined to their proper occupations, and not required at call to be "everything by turns, and nothing long,"—weaver, carrier, tenterer, jobber, &c.; moreover the rate of wages is more fixed, and better understood, being laid down in "statements," agreed to by masters and men. Paying by "statement" has been productive of great

satisfaction to both employer and employed, inasmuch as the rule being clear for both, disputes, difficulties, and ill-feeling have been prevented to a great extent. There has been, as regards hand loom weavers, one or two distinct regulations, and advances of wages, within the last ten years. The first of these took place in 1850; and the last, a year or two later, viz., in 1853. At both the periods in question, agitation and partial strikes were resorted to, and business being brisk, and work very plentiful, the employers appreciated the position, and made the required concessions. It is thought by some people, and with evident reason, that the strikes referred to, which necessarily disarranged business, and were disadvantageous to the trade, gave a great impulse to the substitution of power for hand loom weaving. We may add, there is no doubt that the great bulk of the power looms has been set in motion since the dates in question. The higher branches of employment, demanding persons of steadiness, intelligence, judgment, and skill, such as overlookers, foremen of dyers, foremen of finishers, book-keepers, &c., are receiving considerably the greatest increase of remuneration; of course the number of persons concerned in this benefit is only small, compared with the entire body of workpeople; but the fact just stated serves to shew that intellectual, energetic, and moral qualities in the employee, stand higher in the manufacture now, relatively to ordinary capabilities, than ever. Labour is, of course, liable to fluctuate in value, like any other marketable commodity: when the demand for labour becomes greater

than the supply, its value will rise; when less, its value will fall. This principle being fully recognized, why should an employer feel more annoyance at his workman asking an advance of wages, than he would if he were asked an advance of price upon a lot of wool? and why, on the other hand, should the employed be disposed to ascribe selfish motives to the employer, in case of the latter proposing a reduction of wages? If the principle be sound on the one side, it is so on the other: after all, however, the relations of employer and employed, are different to those of buyers and sellers of commodities, such as raw materials, &c. These relations will not admit of a constant change in the price of labour, like the change in the price of wool, oil, or the 4lb. loaf of bread; such fluctuation would be very inconvenient, so much so as to impede the course of the manufacture materially. It might be shewn what are the circumstances which preclude the practicability of a frequently varying price for labour; but to those who are more immediately interested, they will be pretty obvious. There is, then, a tacit understanding between employers and employed, in the woollen, or at least in the shoddy manufacture, that wages shall remain the same substantially, in good, ordinary, and bad times, according to the current standard of remuneration in force. As an example of steady wages, we may adduce the case of slubbers and spinners—the rate paid them has not undergone any alteration of note for the last twenty years, at least; probably, however, this class of workmen has enjoyed the steadiest and most uniform

wages of any class in the business. The standard of wages, which, as regards piece work, is much more definite than as respects day labour, has been raised by a run of prosperity in the trade, and by the gradual advance of the position of the country, establishing a higher rate of compensation for the services of labour in general; as well as a better return, probably, though some may think otherwise, upon the outlay of capital. The result of the operation of circumstances has been to raise, in the aggregate, the rate of wages paid; and this is only a natural event, because it corresponds both with the prosperity of this branch of trade in particular, and with the general progress of the country, materially and financially. On the whole, the question of wages, in the shoddy trade, has not led to any serious collisions between the employers and employed, of late years, but is one that appears to have been treated on both sides in a moderate, and, it is to be hoped, satisfactory manner. The course of events, however, has not always been quite so smooth, for in the year 1819, there was a strike on the part of the workpeople of a formidable character; and again in, or about the year 1832: neither of these, we fear, was productive of any good—productive, we fear, of nothing but disaster to business, of suffering to the community, and of ill-will between the employer and employed. With every disposition to deal gently with the actors of that day, we think they did not so well understand the question of wages, and the relations of masters and men, as we of the present day; the consequence was, that each class opposed

the other, with a dogged and unreasoning obstinacy; nothing effectual could be done to bring about a compromise, because both the contending parties indulged in bad temper; and nothing but a complete conquest would satisfy either of the combatants. As victory, however, cannot declare itself on both sides of the field, the employed were, as usual in cases of hot and hard-contested strikes, obliged to yield. The latter named strike was instrumental in bringing a considerable number of Irish people into the town, to replace the refractory hands: they formed quite a colony at first, and have increased numerically since. For a considerable time, the presence of the Irish was felt to be irksome by the natives, who regarded "paddy" as an intruder, and looked down upon him as a member of an inferior race. The relations of the two parties were of a very unfriendly nature; and the serious "rows" and collisions resulting from their antagonism, which occurred, kept the town in a state of excitement, apprehension, anxiety, and, we may add, of alarm. Time, the great healer of sorrows, however, has softened the asperity of those feelings, and reconciled, if not wholly, in a great measure at least, the two bodies. It is not improbable that even the employers themselves would have been glad, after a while, to witness the "exodus" of the Irish; but once here, they became fixed on the spot, and as matters have turned out, it may have been for the best. Happy is it for any district, and any trade, when there is that sagacity on the part of those concerned, to perceive what change circumstances require,

and that moderation and reasonableness of spirit, to deal with those circumstances in an enlightened manner, so as to do that which ought to be done for the ends of justice, the interests of trade, unity and good feeling between employer and employed, and the peace and welfare of the community.

The population of the township of Batley may be taken at 11,000 to 12,000; and if we assume the foregoing table of estimates to be something like correct, we shall see that one half of the inhabitants is directly engaged in this business; whilst, we may add, there is no small section indirectly contributing its industry to the staple trade, viz., machinists, joiners, colliers, smiths, and others. The rates of wages paid, as given in the tables, cannot but be interesting, and certainly range higher than those current in some localities—localities devoted not only to the fine makes of cloth, but in places engaged in the shoddy manufacture. This is a subject of gratulation to those who enjoy the benefit of this superior state of things, as respects the remuneration of labour; and to those engaged in the same kind of work who do not, it is serviceable, as establishing a standard of reference, and as furnishing an example calculated to influence the general market value of such labour. A fair, reasonable, and just recompense for labour, is a desideratum; and it is highly pleasing to witness those classes who are dependent upon their manual exertions for the means of sustenance, placed in a position of comfort; and if, as a principle,

a steady, intelligent, and industrious workman cannot obtain a competent livelihood by his toil, it is much to be regretted; and without ascribing all ills to political causes, which would be quite erroneous, there is something decidedly wrong in the body politic, one way or the other, when this is the case. Where a low rate of wages is current, and the working people, who constitute, in most parts, the bulk of the population, consequently poor, how can prosperity exist? How will it fare with the other classes—with the landlord and his rent—the shopkeeper and his custom; in fact with the entire community, whose interests are interlaced in a variety of ways? Any person, therefore, who values the welfare of his town, may be expected to regard with satisfaction, an adequate and even a li[illegible]al rate of wages paid for labour; and will feel circumstances concur, to maintain and perpetu conditions. At the same time it is proper to no the question of wages is determined by the supply and demand for labour, mainly; and depend much upon humane and charitable f these, if exerted, being comparatively powe influence the question materially, in a per manner.

The table shews that there are about nine h dred boys and girls employed out of the who number; a small portion of these are "half-timers, and attend school, which it is obligatory on them to do, in accordance with the Factory Act. Now, though the writer cannot perceive any very obvious improve-

ment in the manners and conduct of the children, since the period when the law required their being taught at school, still he trusts that the instruction imparted, limited and not very consecutive though factory education may be, has really raised the character and intelligence of the body of persons which has enjoyed its advantages. Nothing has been done in this neighbourhood, so far as the writer knows, to provide schools for the children on the mill premises, in like manner with what has been done in various localities; and now that few children are employed at the mill, who fall under the age required to attend school, (this is in consequence of the use of the piecing machine superseding juvenile labour,) it is not likely that schools will be provided in that way; and probably any institution at the mill, for the instruction and mental improvement of the operatives, would assume the form of a library and news-room, on a small scale. The Factory Act has, no doubt, operated to the advantage of the youth employed in factories, by regulating the hours of labour, by enjoining education, and by enforcing certain provisions, calculated to promote the health, comfort, and safety of the children. The closing of the mills at two o'clock on the Saturday afternoon, affording, as it does, nearly a half-day holiday, is, no doubt, regarded as a great boon by the operatives. The time so allowed, or curtailed by the act, may be devoted to healthful recreation and innocent enjoyment; as well as to congenial and useful pursuits of any kind. It is satisfactory to know, that many of the operatives appreciate the

value of the privilege, so as to use it rationally and profitably. Now this half-day holiday, as we may reckon it, is a great and important fact, particularly as regards the national branches of industry, more immediately affected by it. Not only is it a great fact, but it embodies a humane and sacred principle—a principle borrowed, as it were, from the institution of the universal Sabbath, or day of rest; and whereas the Almighty Governor of the universe set the latter apart for the benefit of all men, human rulers have legislatively decreed the former for the behoof of some persons in particular. Now that this principle of a half-day holiday is in force, it will, probably, become perpetual, and be almost as jealously guarded against infringement as the Sabbath itself: thus what is now considered a privilege, because the present generation have had to contend for the enactment of the law, and understand the value of the boon all the better by contrast with the non-possession of it, will be regarded by future generations as an inalienable institution and right, when its origin is well nigh forgotten. In this way the institutions of our country take their rise, from time to time; and whilst we, in our day, have originated the one in question for our own, and the advantage of posterity, we are, at the same time, enjoying the fruits of the exertions of our ancestors. One important effect of the operation of the Factory Act, is the general spirit it has diffused throughout society, the aim of which is to shorten the hours of labour, which in many cases may be done without any disadvantage to business; to mitigate the

severity of toil; to ameliorate the condition of the worker, and to render labour a pleasure rather than a task. At any rate, it appears to the writer that it is the Factory Act which has suggested these philanthropic principles to the public mind, as regards employment not connected with factories; and the fact is patent, that public effort, on a general, or at least an extensive scale, to promote these objects has had its origin since the date of the passing of the act in question. The movements relative to this subject have formed and directed public opinion, which inclines by degrees to the adoption of the principles they embody and advocate. Another effect of the Factory Act has been to regulate, probably, the labour market, as respects distributing the business more equally throughout the year now than formerly: the writer says, probably this has been the case, and would have no doubt on the point, only he cannot determine whether the restrictions upon the hours of labour, in factories, have not been fully counterpoised by the plan of working relays of hands day and night; a plan which has been resorted to by some Manufacturers, in consequence mainly of those restrictions. The Factory Act is not in accordance with the principles of free trade in labour; but still, on the whole, it appears to have worked well for the industrial interests of the country; at the same time, the intention which is manifest on the face of it, viz., to regulate factory labour, so as to be as little injurious to the youthful operatives as possible, has not influenced the whole body of Manufacturers to employ their works during

the day only: a course this which ought to satisfy the desire for profit; and a course which, if not adequate to meet the demand for goods, would legitimately lead to the erection of additional factories. The system of relays is not adapted to secure equally good workmanship, with the employment of a single set of hands: working the fulling stocks day and night forms an exception to these remarks; because it is advantageous to the milling of goods, in general, for the stocks to run continuously, during the week-days; and, moreover, adults, almost wholly, are employed in this department of labour. Having spoken favourably in general terms of the operation of the Factory Act, let us add, that factory inspection is not palatable to mill-owners, altogether; and that it is requisite for the inspectors to perform their functions as mildly as possible, in order to secure the voluntary and cheerful obedience of the employers and employed to the requirements of the law.

PROGRESS AND POSITION OF THE TRADE.

The shoddy manufacture commenced (as has been stated previously) in the year 1813, or about forty-seven years ago; the population of the township being then about 3,000 individuals. At that time, the manufacture of wool goods, chiefly blankets, and a few other coarse fabrics, existed on a small scale; there were only one or two woollen mills, viz., the "Old Mill," and one, or possibly two others, of very

contracted size and powers. Every thing, connected with the business of Manufactures, was limited, rude, and tentative. A master, who employed three or four looms, was considered to be in a large way of business; whilst now there are Manufacturers who employ two or three hundred looms, and that with greater constancy than their early predecessors employed three or four looms. Then it was common for trade to be very dull during the winter months; and people were obliged to pass through the inanimate season as best they could. Trade has been, for a number of years, more regular throughout the course of the year; more equally distributed over its surface, so to speak, than formerly; and more especially so since the passing of the Factory Act, and the repeal of the Corn Laws. The latter event has evidently promoted a greatly extended trade with America; the orders from which country are, as far as a large portion is concerned, in connection with the shoddy trade, executed in this locality during winter months; in fact, there has been trade for winter, generally, as well as summer; and this phase of development is one, the value of which cannot easily be overrated, both as regards the interests of ememployer and employed. The population in 1801 was 2,591; in 1811, 2,075; in 1821, 3,717; in 1831, 4,841; in 1841, 7,076; and in 1851, it had attained to 9,308, according to the census; since then the increase is considerable, and, probably, at present the total does not fall short of 11,000 to 12,000. These facts exhibit the population as progressing at a pretty regular rate of increase, and as having multiplied fully four fold,

during the last fifty years: a rate of progress which has marked the history of but few, if any places in this country; indeed it is a question whether any town or village in England has advanced in an equal degree with the township of Batley, as respects augmentation of population, and expansion of trade. Even its busy and thriving neighbours have not kept pace with it; for whilst, according to some published statistics, compiled for political purposes, it is estimated that the population of Dewsbury has increased, during the last eight years, 40 per cent, and Heckmondwike 45 per cent, Batley is put down as having increased 55 per cent. The writer is of opinion that the compiler of those statistics has overstated the case; but not more in one instance than another, so that they still give the relative progress of the three towns, which are compared together. The following statement of the annual value of the township of Batley for county rate purposes, at the several periods named (kindly furnished by the clerk of the peace's office, at Wakefield), represents in a more remarkable manner than even the increase in the population, the rapid rise of the township in commercial importance, and its progress in material wealth. To sum up, the annual value of the township of Batley, for county rate purposes, was—

In 1821....£3,366
1831....£3,366
1841....£6,450
1851....£16,615
1859....£31,348

It will be seen that the increase in the annual value, from 1841 to 1851, was about two and a half fold; and from 1851 to 1861, we may presume, judging by the amount in 1859, that the augmentation will be fully two fold. These facts clearly indicate the great development of the manufacture and trade of the place; and particularly so as regards the last twenty years, during which period, the annual value, of which we are speaking, has been, we may say, quintupled in amount.

The rapid rise of the population indicates the active and thriving character of the business which has led to that rise; and also to the vastly changed and improved outward aspect of the town; as well as to the enhanced physical comfort, and social well-being of its inhabitants. Nor have the intellectual, moral, and religious interests of the people been disregarded—institutions, and means for these, have been, and are being, liberally provided: only the other day, viz., Whit-Tuesday, in the present year, 1860, the foundation stone of a large and commodious new Wesleyan chapel was laid in the heart of the town; and within an hour of this event, the first stone, also, of large new Independent day and Sunday schools. Moreover, large new schools, intended for Sunday and week-day instruction, have been projected in connexion with the Parish Church; and the works are in progress, although they have not yet been formally commenced. The fact of two large schools and a chapel being in course of erection, at the same

time, in such a place as Batley, is significant of the willingness and readiness, as well as ability of the people, to make ample provision, relative to their highest interests; and is especially pleasing to the philanthropist, as indicative of the care and solicitude evinced in behalf of the youthful portion of the community. The public spirit of the inhabitants has been manifested in the erection of a Town Hall—a large, convenient, and handsome building, opened with considerable *eclat*, in 1854. There are other large and handsome public edifices, but the Town Hall, probably, bears the palm. It is here the Mechanics' Institution, founded in 1843, and now in a flourishing condition, has its offices; likewise the Local Board of Health, established in 1853; where the operations of the Birstal and Batley Bank, for savings, and the Penny Savings' Bank, are carried on; and where public business is chiefly transacted. Probably, there is not a manufacturing population anywhere, more orderly in its behaviour, generally, or of a more intelligent character; or at any rate, presenting order and intelligence combined, in a greater degree. At the same time it is not to be concealed, that there is sadly too much dissipation and improvidence amongst a section of the people: this is much to be regretted; and it is to be earnestly wished that every man would cultivate habits of sobriety and frugality, together with the principles of morality; and endeavour to attain to the true dignity of manhood—by these means, even the hardy sons of toil may secure a position of respectability and competence. One of the

greatest defects in the conduct of the working classes of the present day, is the want of due care and economy, on the part of many, in the disbursement of their wages, during prosperous times; making no provision whatever, for those seasons of scarcity of work, which all experience teaches, will assuredly come. Every man, who possibly can, ought, in bare justice to himself, his family, and the community, to adjust and husband his means, so as to provide, to the best of his ability, for the necessities of such seasons: how can independence, worth the name, be achieved, unless a course like this be pursued?

The mills have been erected at the rate of about two in three years; but the principal accession has taken place within the last twenty years. Although eligible sites may be found for new mills; the valley in which the present ones are chiefly situated, immediately on the stream which flows through it, is well nigh occupied; and lately the banks of the Calder, in the neighbourhood of Dewsbury, have attracted the bulk of the new erections. The mills are generally large and substantial buildings; and though they cannot vie with the Lancashire cotton mills, in respect of either size, cleanliness, or appearance, some of them are, nevertheless, both imposing and handsome; at least to the eye of a Manufacturer. There has been, perhaps, no great improvement in the construction of the modern mills, so far as the principle is concerned; or in their architectural features either: it may be there was not much room for it, as regards

the first point: and as to the last point, solidity and utility, rather than beauty, have been studied and aimed at; indeed, one never sees, as is the case in warehouses, any great attempts at architectural finish in mills. It is noticeable that, of late years the tendency of the manufacture has been to concentrate the several branches of it at the mill premises; and that these are now contrived, so as to be encircled by proper fences, graced with a porter's lodge, or a small room at the entrance of the works, through which the work-people pass and repass, under the eye of the attendant. The numerical progress of the mills, is an index to the development of the trade; they may be taken at any period of its history, as a pretty correct measure of the extent of the manufacture; though it is proper to notice, that, on occasions of extraordinary briskness of business, considerable quantities of work have been sent out of the town, to mills in other districts. There are, now (as stated in the tables) thirty-five woollen mills, greater or less, in the township of Batley; the produce of these in manufactured cloth, ranges, probably, from 130,000 to 150,000 yards weekly, or from near 7,000,000 to near 8,000,000 of yards annually; a qua[illegible]s, which will materially contri[illegible] clot[illegible] therwise minister to the comf[illegible]r [illegible]ege sub jects; as well as [illegible] countri[illegible] The value of the [illegible]n, [illegible]y be ta[illegible] in round number[illegible]li[illegible]arter po[illegible] sterlin[illegible]

Like most, or all other kinds of business, the shoddy trade has had its fluctuations. Periods of briskness and steady prosperity, and likewise of languor and great depression, have marked its career. The years 1836, and 1853, in particular, were characterized by an overwhelming demand for goods; whilst the years 1825, 1837, 1840, 1843, 1847, and 1857, are notable as seasons of panic, and paralysis of business; and of distress and suffering to the operatives. The panic of 1837, was succeeded by two or three years of not very brisk business; and the year 1840 proved most disastrous to the trade of this district; more especially as regards the small class of tradesmen, the greater part of which, it is probably not too much to assert, was annihilated as such, during this severe period. No one, who passed through it, can fail to recollect the stringency of the times, and the gloominess which overspread the country, particularly the manufacturing parts; nothing but bankruptcy stared the Manufacturer and the Trader in the face, and starvation the operatives: such a tedious, almost hopeless, dragging on, for both employer and employed, it is painful to think upon. From 1840 to 1843, the state of trade was extremely disheartening, not only as regards the shoddy, but the woollen manufacture generally; and was associated with many failures, great loss, and much privation. The middle and lower classes, as they are termed, were utterly perplexed and bewildered, with the long continuance of the trying period; and hope, without which mortals are miserable indeed, grew faint in the hearts of men.

As regards Batley, which was, probably, not worse situated than neighbouring towns, such was the want of employment, and the necessities of the working classes, that it was found requisite to raise subscriptions for their relief, in the years 1840, 1841, and 1843, and in the year 1842, possibly; but the writer has not evidence that such was the case, as respects the last named year. To such a climax had manufacturing distress arisen, in 1843, that a movement, on an extensive scale—nay, we may say an almost national movement or effort, was made for the relief of the suffering work-people. The "Manufacturers' Relief Committee," which sat in King William Street, London, was the organized body for carrying out the object. This committee dispensed a large amount of money, beneficially, to the districts requiring assistance. Two donations were made by it to Batley, through the medium of the worthy Vicar; one of sixty, the other of twenty-five pounds, making a total of eighty-five pounds. This sum was augmented by local subscriptions; and all done, that was practicable under the circumstances, to mitigate the severity of the prevailing distress. During these unprosperous years, the prices of goods kept gradually falling; and the value of fixed property, such as mills, machinery, &c., receding; thus inflicting serious loss, if not entire ruin, upon the Manufacturer and Tradesman; whilst the operative exhausted his savings, his credit, and his little resources of every kind. Under these circumstances, when trade began to revive, it found both classes in a very prostrate state, generally; and a

length of time was required to recover lost ground. During the unhappy period in question, in addition to commercial discontent, much dissatisfaction existed in the body politic, especially amongst the mass of working people: no doubt the former was provocative of the latter, the commercial and political discontent being intimately associated. Chartism was rife in the country; its adherents held meetings about the year 1839, in almost all the towns and villages in the north of England. At these meetings language of an inflammatory nature was used; sedition excited, and disaffection promoted; those present were urged to take up arms, in order to effect the object aimed at, viz., a sweeping change in the Constitution, by the adoption of the "Peoples Charter." In pursuance of this advice, the chartists purchased muskets, pistols, and other weapons; cast bullets in great quantities, and proceeded so far as to exercise themselves in training and drill openly. Delegates were sent by a number of towns to what the chartists termed a "National Convention," which met first at London, and afterwards at Birmingham. This convention appointed, what they designated, a "sacred month," to be observed, during which this would be Parliament enjoined that no workman should perform any labour; and that month being the season of harvest, it was intended, by exposing the fruits of the earth, and the sustenance of the country to the risk of destruction, to force compliance with their demands. Accordingly, when the set day arrived, thousands of the malcontents congregated in different parts of the country,

paraded the streets with flags and music, and continued so to act for three or four days, when the turbulence began to subside, and labour to resume its usual course. Agitation, constant and alarming, on the part of the disaffected, spread over a period of several years, with more or less of intensity; this period being almost identical with that of the extreme depression of trade, the want of employment, and that of great privations and sufferings on the part of the working classes. The "plug drawing," in 1842, commonly called the "plug riots," was part of the organized plan of physical force, and a foolish, as well as futile attempt, to coerce the country. The writer remembers the rioters, in great numbers, passing from mill to mill here, and demanding inexorably that the boilers should be "tapped," and consequently the works entirely stopped. They proceeded with impunity, almost, from Dewsbury all the way on till they arrived at Cleckheaton—here measures of precaution had been taken, and a warm reception awaited them; the hosts of physical force were broken and scattered, not to unite again on the field. We believe that the plug riots occurred on the first day of the so called "sacred month," and were part of the scheme it involved. In 1843 chartism received a check—the more immediate cause being, that in March of that year, Fergus O'Connor, and about fifty of his associates, were tried at the Lancaster assizes, and found guilty of exciting the people to insubordination, &c. From the immediately preceding facts, it will be seen, that in addition to manufacturing distress, great political

discontent existed amongst a large body of the people; both causes combined, rendering the position of the country unsatisfactory, critical, and insecure. The political discontent, as we have already intimated, was evidently founded, in no small measure, upon the privations and sufferings of the working classes. Amongst these, it was a prevalent opinion that the system of Government was radically unjust, and defective; and that the stagnation of trade, and the almost dead lock of the country, were to be attributed to that cause; in fact, people scarcely knew who, or what to blame; but as Government was fair game for criticism and reproaches, these were lavished upon it unsparingly. Corroborative of the intimate connection between the depressed condition of the working classes, and chartism, we need only to state the circumstance, that on the return of prosperity, chartism fell into decay, and it has never since exhibited any great vitality. This narrative discloses a deplorable state of things; and the events which it refers to, are calculated to teach a solemn lesson to both governors and the governed. The former may perceive that it is obviously their highest wisdom, as well as their duty, to afford every facility and encouragement to the development of trade, the abundance of which is productive of political tranquility in the state, and of contentment amongst the people; they may perceive that there is nothing like plenty of work and good wages, for satisfying the people, and for dissipating utopian and dangerous schemes. The governed may learn that force and violence defeat their own object, and greatly

aggravate the evils proposed to be remedied: if trade be bad, resorting to those alternatives, will not render it better. Capital is very shy and sensitive; and instinctively, as it were, withdraws its operations in insecure times: the best resource is in a just cause, and referring it to the arbitrament of enlightened public opinion. Our young readers can have no adequate conception of the fearful character of the unhappy period of which we have been speaking, and have every reason to be grateful, in common with the rest of the community, for the profound state of public tranquility which has been enjoyed since.

We have now to refer to other circumstances, predicating ill to the shoddy manufacture. In the year 1840, much excitement and alarm was created in the woollen districts, by the invention of a machine for felting cloth, which threatened to effect a revolution in the manufacture of various kinds of cloth; including pilots, paddings, and other descriptions belonging to the shoddy trade. Patterns of the new production were submitted to the judgment of the public, who were surprised and captivated by the apparent perfection of the cloth. The process of felting cloth was represented to be much readier and cheaper than the mode of spinning and weaving it; hence the Manufacturers were apprehensive of the new superseding the old and tried method; and consequently rendering their machinery, and other property, comparatively valueless. Not so, however; this nine days' wonder, so to speak, passed away; and

never, perhaps, was an alarm so ill-grounded, for little indeed has been heard since of the felting process, in competition with the manufacture of regular cloths. Felted cloths are, probably, not used at all as articles of clothing, except in the felt hat, and possibly in cloth boots; they are most suitable for carpeting, padding, and such like purposes. About the same time that we are speaking of, a great clamour was raised against the shoddy manufacture—the principal character in the play being the rather notorious Mr. Busfield Ferrand. This gentleman appears to have had a perfect horror of the system, and, certainly, laboured with an earnestness, if not a disinterestedness, worthy of a better cause, to destroy it; he applied the most degrading epithets to the persons and things connected with it, amongst the rest, that of "devils dust," as a name for shoddy, will be well remembered, for the term took root, and has been often quoted since. It was presumed at the time, that Mr. Ferrand, then M.P., received communications from persons in this neighbourhood, ill affected to the trade; and that these were the foundation of his obviously malignant attacks. "Mungo, thy days are numbered," was the falsely prophetic declaration, (in the sense in which it was made,) of Stephens, who figured as an agitator and declaimer, during the exciting and perilous times, we have but just attempted briefly to describe. All this opposition, however, (though, perhaps, temporarily injurious to the trade,) ceased; and it is not unlikely that persecution in this case, as it has in many others, promoted the interests assailed, ulti-

mately, by directing attention and enquiry to the subject; but be this as it may, the inherent strength of the system supported it in the trying hour; and it has now attained colossal proportions, and triumphed over every obstacle.

The panic of 1857, like that of 1837, took its rise in the United States of America, and spread its baleful influence over the monetary and commercial interests of this country. The mercantile and manufacturing classes had serious difficulties to contend with; but in the main, they outrode the storm exceedingly well: previous years of prosperity having put them in a position to withstand an adverse shock. The panic was severe. For months and months, there was a paralysis of business in this, and other districts; and something like a year, from the outburst, passed before confidence was moderately restored in the monetary and commercial world. The Bank of England's minimum rate of discount was fixed at 10 per cent. for a considerable part of the time; and the values of raw and manufactured produce, were reduced materially; in some cases, upwards of 20 per cent. The mills in this locality did not work on the average half time, probably; and yet the produce was largely carried to stock. It is painful to think of the condition of a large portion of the operatives, during this period: the stroke of adversity was sudden, the distress severe, and protracted. At Batley, two successive subscriptions, for the relief of the local suffering, were raised within six months, and

were the means of rendering indispensable assistance to the needy. The panic came quite unexpectedly upon the trading world, (at least we may venture to say this, as far as this country is concerned,) and suddenly threw the employer and employed into a state, contrasting so strangely and unpleasantly with that which erst-while they enjoyed, that the effect upon their fortunes seemed almost magical, and perfectly unaccountable. There seems to be a periodicity about these panics; the decennial ones of 1837, 1847, and 1857, have impressed a belief on the public mind that a recurrence of them may be expected every ten years. It will be well if trade be not out of joint oftener than so; and still better, if these desolating phenomena of business should be unknown in the future, except as matters of history. Trade is fluctuating in its nature, and prosperity is its own destruction. When business enters upon a cycle of prosperity, the value of materials and labour advances, and continues to advance; a large outlay takes place, in preparing the means for carrying on enlarged operations; everybody aims at transacting an extended trade; and in order to effect this, many are tempted to have recourse to paper credit: fictitious capital abounds, and serves to enhance prices above their natural level; at length affairs reach a point, at which the sterling currency of the country is totally inadequate to meet the demands upon it; and a point at which money, the representative of value, has become disproportionate to the nominal worth of the commodities represented; or some untoward political

event occurs—startles the nation; destroys confidence; and restricts the circulation. Or the cause of panic may proceed from external sources, as from the United States of America, in the late instance, and a serious revulsion takes place; business flags; prices droop rapidly; traders are unable to meet their engagements; loss accrues on all hands; distrust and fear seize the market; and the votaries of business pass through an ordeal, which, it were to be wished, would prove as salutary as it is severe. Such experiences as these, are calculated to teach prudence and moderation in business; and to impress upon all the importance of operating within safe limits. Even as in the physical world, the thunder storm purifies the atmosphere, and refreshes the air; so in the commercial world, revulsions purify the trading atmosphere, and restore it to a normal and healthful condition. They are, therefore, not without their uses; but if the disease did not exist, there would be no need for a painful remedy. A review of the history of trade, teaches that it never falls too low to rise again, and never rises very high, but it is in the greater danger of falling: the former consideration operating to prevent despondency; the latter, undue exhilaration.

Trade having righted itself in the course of the year 1858, the year 1859 was, although marred by the effects of the war in Italy, favourable on the whole, to the commercial interests of the nation; and the year 1860 opened with bright prospects, all the con-

ditions of prosperity existing in an almost unprecendented degree.

We have now to refer, briefly, to the towns and villages engaged in the shoddy manufacture.

Dewsbury, on the north side of the river Calder, in the lower division of the wapentake of Agbrigg, and in the liberty of the manor of Wakefield, distant eight miles S.S.W. of Leeds, and situated in an adjoining township to that of Batley, is a market town of considerable importance; and extensively engaged in the shoddy manufacture, and the shoddy trade. The population of the township, at the last census, amounted to 14,042, and it has since increased at a rapid rate. The following table presents, at one view, the progress of the population since the year 1801:—

In 1801, the number of inhabitants in the township was 4,566

1811..... 5,059
1821..... 6,360
1831..... 8,272
1841.....10,600
1851.....14,402

In 1859, the rateable value of the township, for county rate purposes, was £40,653. The foregoing particulars, respecting the population, embody the fact of its remarkable increase, especially since the year 1841, and still more apparently so, considered in connection with the assumption that the number now amounts from 18,000 to 19,000. This progress of

the population, and the increase in the wealth of the township of Dewsbury, have been concomitant with the extension of the manufactures, and the trade in which it is engaged. We may seem, by referring to the advanced position of the town first in order, to describe the effect, before specifying the cause; but it is immaterial whether the development and expansion of the trade, or the augmentation of the population, and the increased importance of the town, has priority of attention, as both are inseperably bound up with and dependent upon the other.

The number of woollen and shoddy mills in the township is twenty-three; of these fifteen are engaged in the manufacture of shoddy cloths; two are exclusively mills for the production of the raw material, viz., shoddy and mungo, or rag-wool; and the remaining six are employed in the yarn and carpet trades. The yarn and carpet manufactures absorb a considerable quantity of shoddy, though they do not strictly belong to what is understood by the shoddy manufacture. The nominal horse power of the steam engines will, probably, average thirty-five for each mill, giving a total of about 800 horse power, for the woollen mills. In 1848, the nominal horse power was returned as 482; and whether the amount certainly reaches 800 at present or not, there is no doubt whatever that the augmentation has been very considerable, and almost extraordinary. There are about twenty rag machines in operation; the produce of which is partly consumed in the locality, and partly

disposed of in the surrounding districts. The machinery at the mills is, generally, of a similar character to that of the mills at Batley, and, therefore, needs no special description. We may state that power looms have been obtained largely, in relation to the extent of the manufacture; probably there are not less, at a rough estimate, than 500. The shoddy goods, manufactured here, are substantially of the same class as those made at Batley; there are some little distinctions, but they do not affect the value of the proposition; for instance, in the Dewsbury district there are yet a few druggets produced, and a little more done in blankets than at Batley. The shoddy trade, that is the preparation of, and the dealing in, the raw materials, shoddy and mungo, is conducted on an extensive scale, on a larger scale, perhaps, than at Batley, relatively to the whole of the business in the shoddy line, transacted at Dewsbury and Batley respectively. The rates of wages current at the two places are presumably pretty equal; but, we believe, that at Batley the heads of some, at least, of the departments of labour are in receipt of higher wages, than is the case at Dewsbury.

Dewsbury possesses some distinctive features of a noteworthy kind, relative to the shoddy manufacture in the warehouse system, which is being carried out here, and which has originated within the last few years. The Manufacturers have erected stately groups of warehouses, in a part of the town convenient to the railway; and this they have done for the

purpose of facilitating the disposal of their goods. The plan has also been adopted at Batley Carr. If we assume, as we suppose we may properly, that a warehouse for the sale of a Manufacturer's goods, in a convenient part of the town, where his works happen not to be so, is a useful and almost indispensable adjunct to his means of business; then are the Manufacturers of Batley in a disadvantageous position, as compared with their brother Manufacturers, at those places. Batley does not possess the class of warehouses in question, but there are some now being built, and it seems morally certain that the example of Dewsbury, in this respect, will be generally followed at Batley. Though the Manufacturers of Batley have not enjoyed the advantages which may be derived from the new warehouse system, it is evident that, so far, they have not been obliged necessarily to have recourse to such warehouses, as a *sina que non* of doing busines, in competition with those who have had such recourse; at the same time, the principle thus struck out and acted upon to such an extent at Dewsbury, has not failed to attract the attention of the Batley tradesmen, and to cause them to canvass the subject in its various bearings upon their own interests. To such parties as intend to add the business of merchant to that of manufacturer—that is to sell cloths purchased from others, in addition to their own production—these warehouses are almost necessary establishments; at any rate, these warehouses present great facilities for carrying on the compound business referred to. Those parties who

intend, as a rule, to sell their own manufactures only, may determine the advisability or otherwise of going to the expense of these establishments, by considering the situation of their factories; the extent, the nature of their business, and also its position in the market. The sales by auction of shoddies, mungos, &c., at Dewsbury, have been referred to already, in a previous part of the work, and require no further mention. We may state, as the fact is one connected with the trade of Dewsbury, that a cloth and blanket hall was opened here in the year 1837, the object being to establish a market for the manufactures of the district; however the project never succeeded, and finally was abandoned. —it is a difficult task to remove an old market and establish a new one, in most cases. Dewsbury is a kind of centrepot for the tradesmen of the district, who in part assemble there on the market day (Wednesday), for the transaction of business. This is the more convenient on account of the banking operations of the trade, for miles round, being conducted chiefly at Dewsbury, where two joint stock banks, (with fine, stately buildings, lending great architectural beauty to the town), carrying on an extensive business, are located. Petty sessions have been held here since the year 1820, the bench of magistrates consisting of selections from the local gentry, who act gratuitously. Dewsbury has its various educational and religious institutions; and we may name, especially, its mechanics' institution, which has recently exhibited vigorous improvement, and bids fair to be a very flourishing body. Dewsbury is in a most thriving and

improving condition, and has bright and encouraging prospects for the future.

Mirfield may be properly noticed here, as it is contiguous to Dewsbury, and forms a continuation of the district, in the direction of Huddersfield. Mirfield, we have every reason to believe, is an old clothing village; it has been engaged in the production of fine cloths, and is still so, to some extent; but the introduction of the shoddy manufacture has paled the lustre, as it were, of the fine cloth trade. The shoddy manufacture has been engrafted here modernly; and in recent years, especially, has made rapid progress. Within a very moderate period, say some six or eight years, quite a cluster of mills has been erected on the banks of the Calder, and a population planted, resident in what is designated "New Town." Mirfield is well situated, with regard to the manufacture of cloth, as it possesses, in abundance, the requisites for carrying it on successfully, particularly those of water and coal, and is provided with excellent railway accommodation. The population of the parish, which, in 1851, amounted to 6,966, is variously engaged in manufacture, agriculture, malting, boat building, &c. We may add, in conclusion, that the shoddy manufacture at Mirfield, is of a similar character, in the main, to that of Dewsbury and Batley; and that its position is good, and its prospects excellent.

Ossett, near Wakefield, and distant about four miles from Dewsbury, is an important district, in

relation to the woollen and shoddy manufacture; and especially so, as regards the production of the raw material—mungo. The population is principally engaged in the woollen trade. The census of 1851, gives the number of the inhabitants in the township as 6,252; and they have since increased numerically at a quick rate, so that, at present, the population amounts, almost to a certainty, to 9,000 persons. There are nineteen mills in the township, engaged in the production of woollen cloths, and the raw materials, mungo and shoddy; principally (one might say almost entirely) the former. In addition to these, there are several mills at Horbury and Potovens, worked by Ossett Manufacturers. The nominal horse power of the steam engines employed at the nineteen mills in question, is estimated to be 600; being an average amount of upwards of thirty horse power for each mill. With regard to machinery, we may note that mules have been in general use for twenty years past, and are now in universal use here; but as yet, power looms have not been adopted to any material extent; one firm only, in fact, having availed itself of them. The class of goods made at Ossett, differs, as a whole, from the description manufactured at Batley, Dewsbury, and other places in the shoddy districts; similar goods, of course, are produced to a certain extent, but the Ossett manufacture, in its general character, has always consisted of superior makes; such as beavers, witneys, meltons, pilots, &c., of good quality. White duffels, for pilots, have been a standard make, but the trade in them has ceased here. Latterly, the manu-

facture has turned largely upon the production of army and navy cloths; these are being made extensively, and form an important part of the entire produce. From some cause or other, the demand for Ossett market cloths became very languid a few years ago, and continued so for a length of time; this state of things would seem to have directed increased attention on the part of the clothiers, to the execution of army and navy orders. The cause of the languor in the Ossett trade, first referred to, may be attributed correctly, perhaps, to two causes especially; the one being, that the character of the manufacture for soundness and excellence, was suffered to depreciate, and thus lost favour in the market; the other cause being, as the writer has heard it alleged, that the Ossett Manufacturers did not bestir themselves, so as to move with the times, and endeavour to meet the requirements of the market for new styles and descriptions of cloth. To this we may add, that manufacturing progress appears to have suffered, or to have been retarded, in consequence of the application of several of the Manufacturers to the mungo trade, in preference to cloth making. There are about forty rag machines in operation; these are chiefly, we should say almost wholly, engaged in the grinding of cloth rags into mungo. The quantity produced here, yearly, of this valuable staple is very large; a certain portion of it is used in the manufactures of the place, and the rest is disposed of in other shoddy cloth districts, as well as in the districts engaged in the fine, and also in the fancy cloth manufacture. Ossett transacts a large

business in the article of mungo; and is the most important market in the trade for the purchase of mungo rags, and the sale of their product—mungo. The Ossett people have paid great attention to this branch of business, and have succeeded in raising it to a flourishing position: compared with the cloth manufacture, the mungo business has made by far the more rapid progress of the two. The wages paid in the shoddy trade, at Ossett, run pretty near those current at Dewsbury and Batley; but, we believe, are not quite so high at the former place. That the wages of females should not be so high, is not a matter of surprise, because power looms have not been adopted at Ossett, except in a very limited degree; and the demand for female labour is consequently less brisk there. On a review of the Ossett manufactures, one is led to the conclusion that they have not been upheld in a manner equal with those of some other neighbourhoods, and that they have not been animated by that spirit of improvement and progress, which has marked the career of the manufactures of most of the shoddy districts. If this conclusion be correct, it implies a state of things which furnishes a subject for serious consideration, on the part of the Ossett people; and one which requires a remedy. The trade of Ossett has, we believe, laboured under disadvantages, on account of insufficient railway accommodation; a privation to which Ossett has been subjected for several years, during which, some of its rivals have been more highly favoured in this respect. The people of Ossett are evidently alive to the importance

of increased railway facilities; and are, at present, exerting themselves, in a praiseworthy manner, to promote them, by subscribing funds largely to a railway project on foot, with the object in view. Finally we may add our belief, that there is, now, more public spirit amongst the inhabitants than has been the case for some time; and wishing them success with their railway scheme, and increased prosperity generally, we take our leave of the district.

Morley, in the parish of Batley, and distant about four miles from Leeds, occupies a not unimportant position in connection with the shoddy manufacture: it has a population of about 6,000 persons, who are chiefly engaged in this, the staple branch of industry. The character of the manufacture at Morley, differs materially from that of Batley, or indeed of any other locality engaged in the shoddy trade; the goods produced are a kind peculiar to the place (except so far as the trade has been copied a little elsewhere), and consist almost entirely of union cloths, in a fine make. These are both piece-dyed, and mixed, principally the former, and range in value from about two shillings to six shillings per yard. The cloths have an exceedingly neat and smart appearance; and price considered look remarkably cheap. They are used largely for ladies' mantles, in black and brown, especially light brown shades; also for coffin cloths, in the colour of black; and finally the bulk is adapted to, and made up for, the ordinary clothing of the male population of this and other countries. These union or cotton warp

cloths appear, when compared with woollen cloths of a similar class, much cheaper than the woollens; and not only appear well, but possess inherent economical properties. This being so, the trade has, since its commencement, made rapid progress, having, it is said, tripled in extent, within the last ten or twelve years; indeed the Morley people seem to have made a decided hit, in adopting the description of trade current amongst them; and whilst the manufacture is so beneficial to themselves, the reasonable inference is, that the public is well served and gratified. There are fourteen mills in the township engaged in the business, averaging about thirty horse power each, forming a total of say 420 nominal horse power. We cannot state the number of billies and horses worked a the mills; but it will, probably, give five or six to each mill distributively. The smallness of the make of the cloths requires the wool to be scribbled in an extraordinary degree; hence the Manufacturers have made provision accordingly, having adopted three, and in some cases four swifts in a scribbler; the width of the latter being not unfrequently six feet; the diameters of the swifts are not, however, so large as those of the two swifted scribblers, but still an increased area of scribbling power is attained. Mule spinning has here almost superseded jenny spinning, though there are yet a few jennies in use: but, no doubt, the utensil is gradually progressing toward extinction. Power looms have been adopted here, and are being availed of more and more every day; the number in motion, at present, may be roughly estimated at 200

looms. There are about a dozen rag machines running, which produce chiefly mungo, there being very little shoddy consumed at Morley. The materials used here principally, are wool, mungo, nippings, and fud; besides the necessary *et cæteras*—oil, soap, &c. The requisites for carrying on the manufacture in all its departments, do not exist on a scale adequate to the extent of the business; for instance, a certain portion of the fulling of the goods is effected elsewhere, and the finishing or dressing of nearly the whole takes place at Leeds, where the bulk of the goods is sold; where, indeed, nine-tenths, probably, of the quantity of cloth produced at Morley finds a market. This want of preparation for completing the manufacture of the goods at home will, probably, be supplied in course of time, as the town advances in trade and resources. It has not been usual, in some districts, to consider the dressing of the goods as a part of their manufacture; making the goods was one thing, finishing them another; but it is generally understood, in the shoddy trade, that the manufacture of the cloths includes every process belonging them. Morley is undoubtedly an old manufacturing place, and was, we have reason to believe, identified for a lengthy period with the domestic woollen manufacture. For a considerable time, superfine broad cloths were made here, but have ceased, we understand, to be produced, except it may be casually, or just in such a lingering or accidental way as may be expected when a trade is expiring; not that Morley has lost this business, but as a result of certain consequences, has declined it.

This place has been noted for the fabrication of haberdashery cloths, so called: cloths analagous to those now in current demand, differing very little from the latter, except in being made with woollen in place of cotton warps: these were used largely for cloakings, and, we presume, also largely for coffin cloths. The haberdashery cloths were, for the most part, we believe, exported to America; for which market the looms of Morley for a certain period were almost wholly engaged. Prior to this, the manufacture consisted of wool goods, styled "German twills," for the German market; but the quantity could not, we think, have been considerable. The order of the trade, it would seem, has been thus: first, the domestic woollen manufacture; next, the making of wool goods; afterwards, the production of haberdashery cloths, accompanied by that of superfine broad cloths; and finally, the present manufacture of union cloths, as has been described; besides which army goods are made on a small scale. As previously stated, the trade of Morley has increased in a rapid manner, during the last ten or twelve years; and we would add that this circumstance has been accompanied by a corresponding, or at least, by a large augmentation in the number of the population, a portion of which has flocked in from the surrounding district; from Ossett, Pudsey, and other places. The trade of Morley, as a trade of a noticeable character, has been developed since the year 1830. In 1837, the panic inflicted severe loss upon this town, in consequence of the intimate relations of the trade with the American market, at that time. Wages are about the same level

here as at Batley; and we may mention the gratifying fact, that the masters and men have so adjusted them as that no strikes have taken place. Employment has been more constant, since the trade ceased to be dependent on the American market, which is a more than ordinarily fluctuating one, and since the origin of the description of trade at present in vogue. The land belongs chiefly to the Earl of Dartmouth, and abounds with good stone, besides possessing a plentiful supply of under-surface water; in addition to which coal exists in large quantity—the essential conditions of manufacturing success being thus present in the locality. The Earl has sold land for the last ten or twelve years, on the principle of freehold inheritance; a circumstance which has, no doubt, given an impulse to the town, as regards the progress of buildings, mills, warehouses, and private dwellings. Building is now actively going on in these several respects. The population is orderly, industrious and intelligent. There are two Mechanics' Institutes contributing to the intellectual and moral improvement of the people; and the care for their religous interests is represented by one church, and six dissenting places of worship: hence we may conclude that Morley, in relation to these matters, will bear a comparison with neighbouring towns. Even as we find Morley in evidently a good vein of business, and favoured with encouraging prospects for the future, so we leave it, with our best wishes for its complete success.

Earlsheaton, in the township of Soothill, parish

of Dewsbury, and lying contiguous to the latter town, is a village largely engaged, relatively to the number of the population, in the manufacture of white and coloured blankets; the latter including a proportion of gentian, scarlet, and green. Horse rugs and fancy rugs are also made in considerable quantity. There are five or six mills, termed "blanket mills," engaged in the business; and in addition to the work performed by these, the Manufacturers procure the spinning of yarn, to some extent, elsewhere. The goods are chiefly woven by hand, and the wages of the weavers are very good. The woollen fabrics produced at Earlsheaton, though not of a kind to be classed strictly with the shoddy cloth manufacture, are nevertheless composed partly of shoddy (at least the bulk of them), and hence require notice here; in fact, a great weight of shoddy, chiefly of good staple, is consumed yearly in the manufactures of this place; but scarcely any mungo is required. Formerly, the production of all-wool blankets was the staple trade, and many large government orders for the article have been, and continue to be, executed here from time to time; but we should say that all-wool goods occupy, now, only a secondary position in the manufactures of the place, compared with those composed of wool and shoddy; thus the latter staple insinuates itself into the trade of districts, and acquires ever increasing sway. In conclusion, the township of Soothill includes, it is proper to note, the village of Hanging Heaton, and the hamlets of Chickenley, Chidswell, and Shaw Cross. These are all engaged in the woollen manufacture: Hanging

Heaton and Shaw Cross principally in that of shoddy c[illegible]h proper; and the other two hamlets chiefly in the same as that of Earlsheaton. The area of the township is 2,326 acres; and the population amounted, in 1851, to 5,059 persons.

Heckmondwike, two miles N.W. of Dewsbury, and adjoining the township of Batley, is a thriving village or town. It seems to deserve the latter designation, because the houses and buildings are pretty well massed together, and the population concentrated accordingly; besides which (and this is, perhaps, the principal reason,) a market for the sale of blankets is held on Monday and Thursday in every week, in the Blanket Hall, which is an institution of long standing; probably of full fifty years standing. The population of the township, which, in 1851, amounted to 4,540, and which has since rapidly increased, probably at a not less rate than 30 to 35 per cent., is principally engaged in the pursuit of the woollen trade. The chief article of manufacture is that of blankets, in all their variety of quality, size, style, colour, &c. White wool blankets, of superior quality, are made here and in the immediate neighbourhood in quantity; and indeed Heckmondwike may be designated the head quarters of the blanket trade. The surrounding district, comprising a radius of from one to two or three miles, is engaged largely in the manufacture of blankets, especially the better class of goods; and if one happens to be in the neighbourhood, on a fine sunny day, the hills may be seen dressed out in snow-

white drapery (blankets), forming a pleasing scene, and one bespeaking well-directed industry. In addition to blankets, carpets, coarse woollens, and yarn are extensively manufactured. The carpet and yarn trades have prospered greatly. The class of carpets made here is not the best, and so with the yarn; and no doubt it is in these goods that the bulk of the shoddy used at Heckmondwike is embodied; but at the same time, this material is taken freely for the lower description of blankets. Shoddy is required to a considerable extent here, but not in an equal degree with Earlsheaton, the seat of the coarse wool and shoddy blanket trade. The goods produced at Heckmondwike do not belong to the category of the shoddy manufacture, strictly speaking; but as shoddy (rarely mungo) is used in a large proportion of them, it is consonant with the object of this work to notice the manufactures and trade of the place. Heckmondwike is a modern town or village, and has acquired all its importance within a recent period. Like several neighbouring towns, it has risen rapidly, and at present occupies a flourishing position, possessing, at the same time, the elements of future success and greatness.

Gomersal, in the township of Gomersal, adjoining that of Heckmondwike, is an important manufacturing place; the goods produced, however, are chiefly army and navy cloths, in which a large business is transacted. There are a few goods made here into which shoddy and mungo enter; but as the quantity

of these materials consumed is small, and as Gomersal is not considered a shoddy district, we may venture to dismiss it with this passing notice.

Elland, in the parish of Halifax, is an important manufacturing village or town. Formerly it had a chartered market, two fairs, and a cloth hall. It is situated on the south side of the Calder; and has a station on the Lancashire and Yorkshire railway. The manufactures of this place are chiefly those of shoddy cloths. Elland and the vicinity, including Stainland and Greetland, form a district largely engaged in the production of this class of goods; but the class of goods is one which is peculiar to the locality, and embraces a range of sorts different in character, generally, to those made at Batley and Dewsbury, the chief seat of the Shoddy-Trade. The woollen manufactures of the district, of which Elland constitutes the head quarters, are of a kind not nearly so valuable, on the average, as those of the places just named. The shoddy goods produced in the Elland district, are, principally—linsies, druggets, unions, tweeds, scourers, paddings, pilots, savelists, serges, ranters, natural greys, and army cloths. A large quantity of the lowest cloth made, is mop cloth, used by domestics for cleaning the floor, &c. The paddings, which are chiefly red, and of low quality, are, we believe, used in like manner with olive paddings, described previously; and have been largely exported to America. The serges, at least the better kinds of blue, are worn partly in the shape of light smocks, by sailors, dyers,

and, perhaps, by a few others; but the bulk of these, and likewise that of the blue unions, is used for linings—that is for lining cloth garments. The descriptions given of pilots, druggets, savelists, and army cloths, under their respective heads, in connection with the manufacture of Batley, apply here. All the cloths are cheap, and useful for clothing or other purposes. They are chiefly sold to London, Manchester, and Rochdale houses. In addition to the chief branch of industry, there are, at Elland, a number of dye-works, some cotton mills, and a few machine establishments; the business of the town being both varied and thriving. It might be interesting to the people of Elland to see traced the rise and progress of the woollen trade of the town and neighbourhood, but we cannot enter much into detail relative to the past; suffice it to say, that the origin and development of the woollen manufacture at Elland, correspond in their main features, both as to time and circumstances, with the origin and development of the business in many other places—that is to say, commencing sixty or seventy years ago, with everything limited, rude, and unfinished; then proceeding in a kind of geometrical ratio from little to much; and from rudeness in machinery and manufactures, to a high state of perfection in both. The importance of Elland, as a manufacturing place, has been acquired chiefly during the last thirty years; and this period corresponds very nearly with the time that the town has been engaged in the shoddy cloth business. The population has increased concurrently with the increase of trade, and

has rapidly augmented during the last few years, in consequence of three or four mills being built in a short time, and strangers coming to reside in the town. The number of the inhabitants will, probably, reach 9,000 at present. There are about twenty-nine mills in the Elland district engaged in the shoddy cloth manufacture viz., seventeen or eighteen in Elland, seven in Stainland, and four in Greetland. Some two or three of the mills derive their motive-power entirely from water, and several are propelled by the united agency of steam and water power; the rest by steam power of course. It is not easy to determine the nominal horse power employed to work the mills; but it will probably amount to about 900. If we reckon the mills to have, on an average, five billies each, the computation will give about 140 billies for the district. Mules are abundant, and power loom weaving obtains to a considerable extent. There are, we believe, only two or three rag machines in the district; these serve only very partially to supply the Manufacturers with the raw materials, shoddy and mungo—materials, the bulk of which is purchased from the dealers of Dewsbury, Batley, and Ossett. It is worthy of mention, as shewing the achievements of modern times, and the enterprise of individual firms, that at the principal woollen factory in Stainland (such are the varied and complete arrangements of the establishment) wool is put into process there and brought out in the form of made-up garments, ready to be worn, without ever having had occasion to leave the premises. This is very different to the

time when Manufacturers (many of them) sent the wool to be carded miles from home in one direction, and, probably, sent the cloth as far in another, to be milled, dyed, or finished. It is pleasing to right-minded observers to find the trade of any district in a thriving condition, and all classes connected with it in the enjoyment of prosperity; and whilst it may be affirmed of the Elland district that such is the case with it, abstractedly considered, it is but just to say that, be the profits of the employers what they may, the wages of the work-people fall from ten to twenty per cent. below the rates current in several other shoddy districts. This circumstance may, perhaps, be logically connected with the fact that the goods manufactured, at Elland especially, are of a low character; and that the prices of the goods will not admit of the most liberal scale of remuneration for labour. For example, the prices of several articles run thus—

Linsies, 27 inches wide, 3d. to 8d. per yard.
Scourers, or Mop Cloths, 3d. to 6d. per yard.
Unions, or Tweeds, 38 to 52 inches wide, 7d. to 1s. 3d. per yard.
Red Paddings, 18 or 20 inches wide, 3d. to 8d. per yard.
Red Paddings, 38 to 52 inches wide, 7d. to 2s. 6d. per yard.
Savelists, 44 to 55 inches wide, 1s. 6d. to 4s. per yard.
Serges, in various colours (union and woollen) 3 qs. wide, 9d. to 1s. 9d. per yard.
Slave, or Negro Cloths (unions) 3 qs. wide, 10d. to 3s. per yard.
Slave or Negro Cloths 6 qs. wide, 3s. to 5s. per yard.
Army Cloths, 6 qs. wide, 5s. to 10s. per yard.

Some of the sorts of cloth just described are the lowest that can possibly be made, but still they are useful in their way, and serve the purpose of the public; at the same time, it may be worth a thought, on the part of

the people of Elland and the vicinity, whether their interest would not be best consulted by aiming steadily and persistently to improve the character of the trade, as regards making a superior class of goods. "It is possible to grow fat upon a rock," it is said; but it is not very probable; and "From nothing," it is said, moreover, "nothing can come." It is but bare justice to state that Stainland and Greetland, produce a more valuable class or entirety of goods than Elland. And now wishing well to the district, and passing over points of interest which we could have wished to notice, we must take our leave of the subject. There are in addition to the places specially named, as engaged in the shoddy manufacture, others so engaged, in a minor degree, especially in the neighbourhood of Halifax and Huddersfield, as well as Leeds; indeed there is scarcely a branch of the woollen manufacture that is not being, in some measure, inoculated with the materials, shoddy or mungo; and not only do they worm their way into every nook of the Yorkshire woollen districts, but they are sent into other counties, such as Lancashire, Durham, Lincolnshire, &c. The future historian of the Shoddy-Trade will, in all human probability, have to survey and record the operations of a much more extensive area, than that which at present exists in relation to it; or will, at least, have to record a great expansion of the trade within the limits of the present area.

It may give a more definite idea of the extent of the Shoddy-Trade for the writer to state his opinion

that such extent will be represented by quadrupling or quintupling the amount of the business, in connection with the trade, transacted at Batley. The result would shew that about 25,000 persons are directly engaged in the trade; and the value of the yearly production of cloth, to be from five to six millions sterling. After the early struggles, and all the vicissitudes of the trade, we view it now firmly established on a wide basis; we view it now vigorous and flourishing—all honour to those who have borne the burden and heat of the day, and whose exertions have raised it to this condition! We view it now fringed with glowing prospects of future signal success; and could we dip our pen in the ink of prophecy, we might be gifted to depict, in graphic language, the vastly enlarged operations, and also the improved character of the trade—to describe splendid achievements in the art of cloth making, founded upon a better recognition of scientific principles than hitherto—to tell of districts blessed with a thriving industry, increased in population, and enriched with wealth—villages raised into towns, and towns become eminent in all the elements of greatness—to tell of families raised to opulence and high distinction; and finally, to tell of (not being a prophet) one does not know what remarkable consequences. All this, however, we leave to the future historian; and whatever may be the course of the trade in future, we have endeavoured to convey to the reader as correct an idea as possible of its origin, nature, and utility—its past history, and present position; and in the hope that we have not failed in our object, we make our retiring bow most respectfully.

J. FEARNSIDES, PRINTER, BATLEY.